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QUARTERLY MONITORING REPORT
OPERABLE UNIT NO. 1 – SITES 24 AND 78

THIRD QUARTER 1996 (JUL – SEP 96)

MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

CONTRACT TASK ORDER 0367

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Prepared by:

BAKER ENVIRONMENTAL, INC.
Coraopolis, Pennsylvania

TABLE OF CONTENTS

ATTACHMENTS

LIST OF TABLES

LIST OF FIGURES

PREFACE

The quarterly 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), 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, Health and Natural Resources; MCB Camp Lejeune Environmental Management Department; 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. The ROD for OU No. 1 stipulates that groundwater samples from 25 monitoring wells and 8 water supply wells be collected quarterly and submitted for specified laboratory analyses. The ROD also indicates 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) to monitor the potential for human or ecological exposure due to off-site migration of contaminants, and (2) to evaluate the effectiveness of the groundwater treatment systems. The quarterly 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.

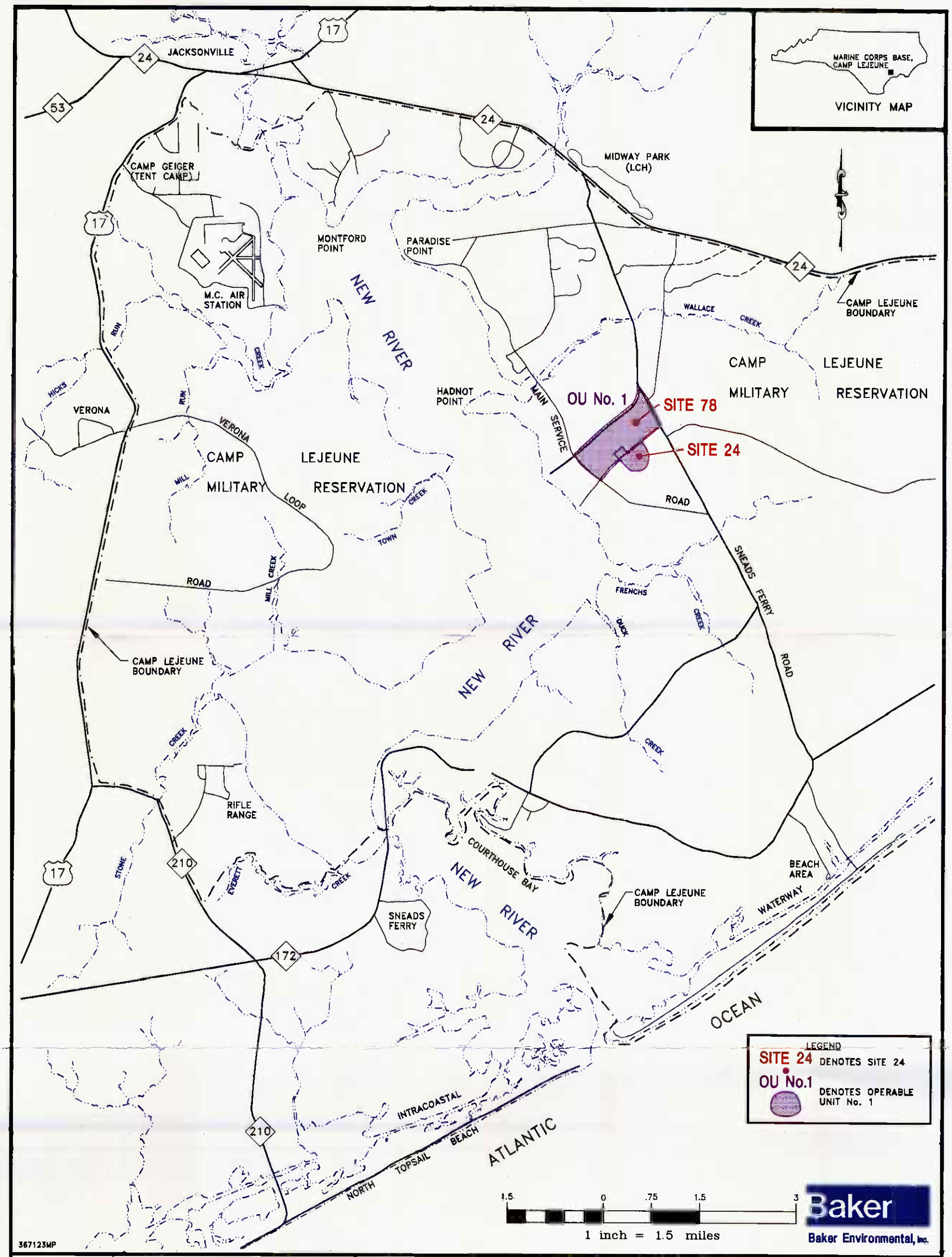


FIGURE P-1
LOCATION MAP
OPERABLE UNIT No. 1 – SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO – 0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

1.0 INTRODUCTION

The following quarterly monitoring report presents the sampling procedures and analytical results of the monitoring program at Operable Unit No. 1 (Sites 24 and 78), Marine Corps Base (MCB) Camp Lejeune, North Carolina. Operational data and an evaluation of the groundwater treatment system at Site 78 are also provided within the quarterly monitoring report. The report describes the activities completed at Sites 24 and 78 during the third quarter of 1996.

1.1 Report Organization

This quarterly monitoring report is comprised of five text sections. Section 1.0 describes the sampling program procedures and methodology. Section 1.0 also provides groundwater elevation data, groundwater flow direction, and various field observations. Analytical results and findings are presented in Section 2.0. A comparison of previous analytical results versus the most recent results is also included within this section. Section 3.0 presents an evaluation of the northern and southern groundwater treatment systems at Site 78. Section 4.0 includes recommendations for the quarterly sampling program at Sites 24 and 78 and recommendations for the groundwater treatment system at Site 78. All references used in the preparation of the report are included in Section 5.0. The tables, figures, and attachments are provided after the text portion of the report.

1.2 Quarterly Sampling Program

The sampling program for Operable Unit (OU) No. 1 commenced on July 8, 1996 and continued through July 18, 1996. Sampling at Site 24 involved the collection of groundwater samples from three shallow monitoring wells shown on Figure 1-1. Groundwater samples from Site 78 were collected from 18 shallow monitoring wells, two intermediate wells, three deep wells, and five recovery wells which are not actively pumping groundwater at the present time. Figure 1-2 depicts the locations of the shallow, intermediate, and deep monitoring wells, and the recovery wells which were sampled at Site 78.

Prior to sampling, monitoring wells at both Sites 24 and 78 were redeveloped to remove fine-grained material from the well screens and to reestablish interconnection with the surrounding geologic formation. During redevelopment of the monitoring wells a Waterra™ pump was used to rapidly raise and lower a dedicated ½-inch polyethylene tubing upon which a check valve and surge block were secured. The combined action of pumping and surging groundwater through the well screen dislodges and removes any fine grained material from the well screen and sand pack. Where conditions permitted, three to five well volumes were removed during redevelopment until the groundwater was essentially sediment-free. Measurements of pH, specific conductance, and temperature were recorded after each well volume was removed to confirm groundwater parameter stabilization. The groundwater measurements compiled during redevelopment activities are provided as Attachment A.

During the quarterly sampling event, a low flow purge and sampling technique was employed. The sampling methodology was developed in response to conversations with the United States Environmental Protection Agency (USEPA) Region IV personnel in Athens, Georgia. A peristaltic pump, with the intake set two to four feet above the bottom of the well, was used to purge each of the monitoring wells. While purging groundwater, a flow rate of less than 0.25 gallons per minute was maintained. Environmental samples were obtained directly from the pump discharge. Dedicated sections of polyethylene and silicon pump-head tubing were used during purge and sampling activities at each monitoring well.

A minimum of three well volumes were purged from each monitoring well prior to sampling. Measurements of pH, specific conductance, dissolved oxygen, temperature, and turbidity were recorded after each well volume was removed to ensure that groundwater characteristics had stabilized before sampling. These measurements were recorded in a field logbook and are provided in Table 1-1. Prior to groundwater purging, water level and total depth measurements from each monitoring well were obtained. Water level, well depth, and well diameter measurements were used to calculate the volume of water in each well and the volume of water necessary to purge the well. Table 1-2 provides a summary of monitoring well construction details for both Sites 24 and 78.

Groundwater samples were collected to assess whether contamination detected during previous investigative activities was present in the shallow aquifer or had migrated to the deeper aquifer. Based upon previous quarterly monitoring results and decision documents, the contaminants of concern were volatile organic compounds (VOCs) and selected metals. Groundwater samples were analyzed for full target compound list (TCL) organics, oil and grease, selected target analyte list (TAL) total metals, total suspended solids (TSS), and total dissolved solids (TDS). Samples were preserved at the time of collection with hydrochloric acid for organic analyses, nitric acid for metal analyses, and sodium hydroxide for suspended and dissolved solids analyses. Table 1-3 provides a summary of requested analyses and groundwater samples submitted during the quarterly monitoring program. Groundwater samples were analyzed using various analytical methods, as provided in Table 1-3, and Level IV Data Quality Objectives (DQOs). DQO Level IV is equivalent to the Naval Facilities Engineering Service Center (NFESC) Level D, as specified in the "Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Restoration Programs" document. Table 1-4 provides the various analytical method detection limits and comparative state and federal groundwater quality standards.

Trip blanks were prepared prior to the sampling event, placed in sample storage containers, and kept with the investigative samples throughout the sampling event. The trip blanks were then packaged for shipment with the environmental samples and sent for analysis. Trip blanks were used to determine if samples were cross-contaminated during storage and transportation to the laboratory.

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 groundwater samples to the laboratory. Chain-of-custody forms were then compared to the monitoring plan; this comparison was used to verify that appropriate laboratory analyses had been requested. Upon receipt of the laboratory analytical results, a further comparison was performed to verify that each sample was analyzed for the requested analyses. Sample tracking documentation is provided as Attachment C. The sample designation format used during the monitoring program at Sites 24 and 78 is provided in Attachment D.

1.3 Groundwater Elevation and Flow Direction

The following sections provide information concerning groundwater flow patterns at Sites 24 and 78. Static water level measurements were collected after all well sampling activities had been completed. Measurements were recorded from top-of-casing (TOC) reference points marked on monitoring well casings. Groundwater measurements were recorded to the nearest 0.01-foot using an electric measuring tape. The evaluation data were obtained by subtracting the measured depth to groundwater from the reference elevation. The groundwater elevation data are based upon water levels obtained during the third quarter sampling program. For ease of discussion, groundwater elevation and flow direction for the two sites are presented separately.

1.3.1 Site 24

Water level measurements were collected at Site 24 on July 30, 1996. Table 1-5 provides a summary of the measurements and Figure 1-3 depicts the static elevations and approximate flow direction of groundwater. Groundwater at Site 24 flows south to southwest in the direction of a series of tributaries which lead to Codgels Creek. As shown on Figure 1-3, the flow direction near monitoring wells 24-GW07 and 24-GW08 in the northern portion of the site, is toward the south. Groundwater flow near wells 24-GW03 and 24-GW10 is generally toward the southwest. The slight difference in groundwater flow directions across Site 24 is most likely a result of the local topography and the influence of the surface water features.

1.3.2 Site 78

Water level measurements at Site 78 were collected on August 8, 1996. Table 1- 6 provides a summary of the measurements and Figure 1-4 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 southwest, in the direction of an unnamed tributary to Codgels Creek. An active groundwater recovery system, located within the former fuel farm area, appears to impact the local groundwater flow pattern near monitoring well 78-GW22-1. As shown on Figure 1-4, the potentiometric contour lines near well 78-GW22-1 bend upgradient, indicating a slight depression of the potentiometric surface in this area.

1.4 Field Observations

The following field observations were noted during the quarterly monitoring program. Recommendations regarding the field observations which follow are presented in Section 3.0.

Monitoring wells installed during the 1986 Confirmation Study are in need of above-ground maintenance. Paint on the bollards and protective casings of the majority of these wells has begun to peel and rust is present. Many of these wells are lacking protective steel caps and the required locking well caps. As a result, many wells are open and exposed to the environment. The usability and security of the wells at these sites should be addressed if they are going to remain groundwater sampling points.

In addition to the deterioration of the wells above-ground, some of the monitoring wells installed in 1986 may have also deteriorated below ground. Several of the wells at Site 78 exhibited sediment in the groundwater samples, after having been purged for a reasonable amount of time. This is evident by turbidity readings collected during groundwater sampling activities. For example, monitoring well 78-GW22-1 had consistent turbidity readings of greater that 200 nephlometric turbidity units (NTUs). In general, it is preferred that groundwater samples be collected after turbidity readings stabilize at less than 10 to 20 NTUs. In many cases, the older monitoring wells do not reach this turbidity level, resulting in less than ideal sampling conditions.

Recovery wells RW-1 through RW-4 and RW-9 are being sampled as part of the groundwater monitoring program at Site 78. However, these recovery wells are not actively extracting groundwater for treatment. Samples collected from the recovery wells may not reflect true contaminant concentrations present in groundwater. The volume of water that must be purged from the recovery wells is significantly greater than the volume of water removed from typical monitoring wells. The groundwater sampling technique employed at OU No. 1 is meant to reduce the amount of suspended solids and minimize volatilization of organic contaminants. The sampling method

used throughout OU No.1 involves low flow purging (i.e., extracting groundwater at less than 0.25 gallons per minute). The low flow procedure does not remove a sufficient volume of groundwater from larger diameter recovery wells.

A number of wells included in the groundwater monitoring program at Site 78 are located in or adjacent to areas which have exhibited petroleum contamination. These areas are actively being addressed as part of the Underground Storage Tank (UST) Program at MCB Camp Lejuene. For example, monitoring well 78-GW22-1 is located within the former Hadnot Point Fuel Farm. During sampling activities, petroleum odors have been noted and VOCs associated with petroleum products (i.e., benzene, toluene, ethylbenzene, and xylenes) have consistently been detected at concentrations exceeding North Carolina Water Quality Standards (NCWQSs). In addition, an active product recovery system is in operation at the former fuel farm.

At least two additional monitoring wells, included in the quarterly sampling program, are located adjacent to other areas of concern. Monitoring well 78-GW19 is situated next to Building 1115; the location of a former UST and a well currently used to recover petroleum product. Monitoring well 78-GW05 and recovery well RW-9 are located near or hydraulically downgradient of Installation Restoration Program (IR) Site 94. In addition to the UST sites there are also a number of solid waste management units (SWMUs) within Site 78. Figure 1-5 depicts the locations of IR, SWMU and UST sites that are within the boundary of Site 78.

The SWMU and UST sites presented on Figure 1-5 are being addressed as part of separate programs instituted at MCB Camp Lejuene. Organic compounds have been detected in wells located adjacent to the IR and UST sites identified within Site 78. The presence of VOCs in wells 78-GW05, 78-GW19, and 78-GW22-1 suggest that previous activities "unrelated" to Site 78 have contributed to results obtained during the quarterly monitoring program.

2.0 ANALYTICAL RESULTS AND FINDINGS

The section which follows presents analytical results and findings from sampling performed during the third quarter of 1996 as part of the groundwater monitoring program at Sites 24 and 78. This section focuses upon primary site concerns and is not intended to address all analytical results.

Groundwater samples from Site 24 were obtained from three shallow monitoring wells. The quarterly sampling program at Site 78 entailed the collection of groundwater samples from 18 shallow monitoring wells, 2 intermediate monitoring wells, 3 deep monitoring wells, and 5 inactive groundwater recovery wells. A summary of groundwater analytical results is provided in Table 2-1. A positive detection summary of organic compounds, selected TAL metals, total dissolved solids, and total suspended solids is provided in Table 2-2. Oil and grease compounds were not detected among any of the groundwater samples submitted for analyses from Sites 24 and 78. As a result of those analyses, the presence of oil and grease in groundwater will not be addressed.

Trip blanks accompanied the groundwater samples during field collection, shipment, and laboratory analysis. Only one organic compound was detected among the five trip blanks submitted during the quarterly sampling program. Toluene was detected at concentrations of 0.5 and 0.6 micrograms per liter (µg/L) in two of the five trip blanks. Analytical results from the five trip blanks are presented in Table 2-3.

2.1 Site 24

The following subsections present analytical results and findings from the monitoring program conducted at Site 24 during the third quarter of 1996. As provided in Table 2-2, no VOCs were detected among the three groundwater samples extracted from the shallow aquifer. As a result, the presence of VOCs at Site 24 is not addressed.

2.1.1 Selected Total Metals

As presented in Table 2-2, iron, lead, and manganese were the only total metals detected among the three groundwater samples submitted for analyses from Site 24. Iron was detected in each of the three samples, while lead and manganese were detected in only two of the three samples. The sample obtained from monitoring well 24-GW09 exhibited the only positive detections of metals that exceeded NCWQSs. Iron was detected at a concentration of 313 µg/L in well 24-GW09, which slightly exceeded the NCWQS of 300 µg/L. Manganese was detected at 76 µg/L in well 24-GW09, which also exceeded its screening standard of 50 µg/L.

The observed concentrations of both iron and manganese at Site 24 are typical of analytical results obtained during numerous other groundwater sampling investigations conducted throughout MCB Camp Lejeune. Although the concentrations of iron and manganese in 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 iron and manganese. 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 iron and manganese in groundwater is often a reflection of solids or colloids in samples. In order to limit the amount of solids and obtain a more representative groundwater sample, 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 in groundwater samples. Well deterioration and

improper well construction procedures or materials may also contribute to the presence of solids, and therefore, metals in groundwater samples.

2.1.2 Suspended and Dissolved Solids

No suspended solids were detected among the three groundwater samples obtained at Site 24. Two of the shallow groundwater samples had detectable concentrations of dissolved solids. As provided in Table 2-2, monitoring wells 24-GW08 and 24-GW09 had dissolved solid concentrations of 88 and 54 milligrams per liter (mg/L). The concentrations are below the NCWQS for dissolved solids of 500 mg/L.

2.2 Site 78

The following subsections present analytical results and findings from the monitoring program conducted at Site 78 during the third quarter of 1996. Positive detections of volatile compounds were limited to samples obtained from the surficial aquifer. The lack of positive VOC detections in samples obtained from the deep aquifer suggests that these contaminants have not migrated vertically from the surficial aquifer. The majority of volatile detections were observed in samples obtained from the uppermost portion of the surficial aquifer.

2.2.1 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 18 shallow monitoring wells and 5 recovery wells (refer to Table 1-2 for well construction details and Figure 1-2 for well locations). Two additional groundwater samples were obtained from intermediate wells set in the lower portion of the surficial aquifer. The subsections which follow provide not only an evaluation of the most recent analytical data, but a comparison of those findings versus previous results.

2.2.1.1 Volatile Organic Compounds

A summary of groundwater analytical results is provided in Table 2-1; a graphic depiction of VOC results and their locations throughout the study area is presented in Figure 2-1. In general, the analytical data suggest two primary areas of chlorinated solvent contamination and one area of petroleum-related contamination within Site 78. The main area of petroleum-related groundwater contamination is situated within the former fuel farm area (refer to Figures 1-5 and 2-1). Benzene, toluene, ethylbenzene, and total xylenes were detected in the sample obtained from shallow monitoring well 78-GW22-1 at concentrations considerably in excess of applicable water quality standards. As provided in Table 2-2, the petroleum-related contaminants benzene, toluene, ethylbenzene, and total xylenes were detected at concentrations of 9,500, 19,000, 2,300, and 11,000 µg/L, respectively. Previous sampling results confirm the presence of petroleum-related contaminants within the former fuel farm area. In fact, monitoring well 78-GW22-1 is located within 250 feet of an active fuel product recovery system and within 150 feet of a fuel product recovery well. These same petroleum-related contaminants have not, however, been detected in the downgradient monitoring well 78-GW17-1.

Figure 2-2 depicts the approximate extent and locations of two suspected contaminant plumes within shallow groundwater at Site 78. Graphic representation of the two chlorinated solvent plumes is based upon a limited number of sampling locations and, therefore, has been approximated. The northern contamination area is located southwest of Buildings 902 and 903 toward monitoring well

78-GW23. The southern area is situated near the intersection of Fir and East Streets at monitoring well 78-GW09, extending south and west.

A total of six VOCs were detected among samples associated with the southern contaminant plume. As depicted in Figure 2-1, 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, intermediate well 78-GW09-2, and recovery well RW-9. Among these wells, the sample obtained from well 78-GW09-1 exhibited the highest concentrations of each chlorinated solvent identified. As presented in Table 2-2, the solvents chloroform, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethene (total), and trichloroethene were detected in the sample obtained from well 78-GW09-1 at concentrations of 4, 420, 52, 140, 620, and 1,000 µg/L, respectively. Figure 2-3 depicts total chlorinated solvent concentrations in samples obtained from well 78-GW09-1 during the past five quarterly monitoring events. The increased concentration of total chlorinated solvents detected in well 78-GW09-1 is most likely the result of differing laboratory analyses; not until the third quarter of 1996 were groundwater samples submitted for 1,2-dichloroethene (total) analyses. Figures 2-4, 2-5, and 2-6 depict the concentrations of specific compounds detected in prior samples obtained from well 78-GW09-1.

As presented in Figure 2-1, 1,2-dichloroethene (total) was detected at 2 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 southeast of shallow well 78-GW09-1. The highest concentrations of solvent contaminants in the southern portion of Site 78 have been detected in samples obtained from shallow well 78-GW09-1. Previous results from groundwater samples obtained from intermediate well 78-GW09-2 have not identified chlorinated solvents in the deeper portion of the surficial aquifer. Additional quarterly sampling results will be required to confirm the vertical migration of contaminants within the plume area. No VOCs were detected in the sample that was obtained from deep monitoring well 78-GW09-3, located nearly 200 feet east of 78-GW09-1. These analytical results suggest that chlorinated solvent contaminants are primarily limited to the uppermost portion of the surficial aquifer in the southern plume area of Site 78.

A total of four chlorinated solvents and three petroleum-related compounds were detected among samples associated with the northern contaminant plume. As depicted in Figure 2-1, positive VOC detections in the northern portion of Site 78 were limited to shallow monitoring wells 78-GW23 and 78-GW24-1. Groundwater samples obtained during previous monitoring events from nearby recovery wells RW-10 and RW-11, provide further confirmation of both petroleum-related contaminants and chlorinated solvents in the shallow aquifer. As presented in Table 2-2, the solvents 1,1-dichloroethene, 1,2-dichloroethene (total), trichloroethene, and vinyl chloride were detected in samples obtained from wells 78-GW23 and 78-GW24-1. The sample obtained from 78-GW23 had the highest concentrations of each identified contaminant. The maximum concentrations of 1,1-dichloroethene, 1,2-dichloroethene (total), trichloroethene, and vinyl chloride were 5, 8, 900, 50, and 240 µg/L, respectively. Figure 2-7 depicts total chlorinated solvent concentrations in samples obtained from well 78-GW23 during the past five quarterly monitoring events. The increased concentration of total chlorinated solvents detected in well 78-GW23 is primarily the result of differing laboratory analyses; not until the third quarter of 1996 were groundwater samples submitted for 1,2-dichloroethene (total) analyses. Figures 2-8 and 2-9 depict the concentrations of specific compounds detected in prior samples obtained from well 78-GW23.

Within the suspected northern contaminant plume, benzene and toluene were also detected in shallow groundwater samples obtained from both 78-GW23 and 78-GW24-1. Ethylbenzene and total xylenes

were detected only in well 78-GW23. Of the petroleum-related contaminants, only benzene was detected at a concentration which exceeded the NCWQS of 1.0 µg/L. The maximum concentrations associated with the northern contaminant plume of benzene, toluene, ethylbenzene, and total xylenes were 17, 9, 4, and 57 µg/L. Results from samples collected during previous quarterly events confirm the presence of petroleum-related compounds in the northern portion of Site 78.

Previous sampling results from intermediate monitoring well 78-GW24-2, located adjacent to shallow well 78GW24-1, suggest that petroleum-related compounds may have begun to migrate vertically from the surficial aquifer. During the second sampling quarter of 1996 benzene, ethylbenzene, and toluene were detected in 78-GW24-2 at a concentrations of 4.8, 3.5, and 15 µg/L, respectively. Additional sampling data will be required before the presence of VOCs in the deeper portion of the surficial aquifer can be confirmed.

Shallow monitoring wells 78-GW19 and 78-GW39 are situated in areas removed from the three suspected contaminant plumes at Site 78. Tetrachloroethane, however, was detected in both wells at concentrations in excess of the NCWQS of 0.7 µg/L. Tetrachloroethane was detected at a concentration of 0.8 in the sample obtained from well 78-GW19, and 1.0 µg/L in 78-GW39. Similar concentrations of tetrachloroethane were detected in 78-GW19 during previous monitoring events.

2.2.1.2 Selected Total Metals

As indicated in Table 2-2, total metals were detected in each of the 25 groundwater samples submitted for analyses from the surficial aquifer at Site 78. Iron and manganese were the most frequently detected total metals among samples obtained from the 18 shallow and 2 intermediate monitoring wells and the 5 recovery wells. Iron was detected among 15 of the 25 samples at concentrations which exceeded the NCWQS of 300 µg/L. Only 4 of the 25 groundwater samples had concentrations of manganese which exceeded the NCWQS of 50 µg/L. Positive detections of both iron and manganese were distributed throughout the site, indicative of natural site conditions rather than disposal activities. Table 2-1 provides a summary of analytical results from Site 78 and a comparison of those results versus groundwater screening standards.

Arsenic, chromium, lead, mercury and nickel were detected at their respective maximum concentrations in a sample obtained from shallow monitoring well 78-GW22-1, located within the former fuel farm area. Chromium and lead were detected in the sample obtained from well 78-GW22-1 at concentrations of 80 and 112 µg/L. The chromium and lead detections exceeded applicable NCWQS levels of 50 and 15 µg/L, respectively. Positive detections of petroleum-related compounds in the sample obtained from 78-GW22-1 may account for the presence of these metals at higher concentrations, relative to the entire sample set.

2.2.1.3 Suspended and Dissolved Solids

Both TSS and TDS analyses were performed for each of the 23 shallow and 2 intermediate groundwater samples obtained at Site 78. As provided in Table 2-1, suspended solids were reported at concentrations ranging from 6 to 700 mg/L among 7 of the 25 samples obtained from the surficial aquifer. Groundwater samples collected from shallow monitoring wells 78-GW14 and 78-GW22-1 had concentrations of suspended solids that exceeded other positive detections by more than 480 mg/L. The TSS analyses from shallow monitoring wells 78-GW14 and 78-GW22-1 confirm field turbidity measurements observed during both redevelopment and purge activities. The analytical results suggest that the two shallow monitoring wells have either begun to deteriorate or were poorly constructed during installation. In either case, an abundance of suspended solids have

penetrated both screen and sandpack. Samples obtained from shallow monitoring wells 78-GW14 and 78-GW22-1 may, therefore, not accurately reflect true groundwater conditions.

Dissolved solids were reported in each of the shallow and intermediate groundwater samples at concentrations ranging from 64 and 350 mg/L. None of the dissolved solid detections exceeded the NCWQS of 500 mg/L.

2.2.2 Deep Groundwater

The following subsections present the analytical results and findings from three deep groundwater samples obtained at Site 78 during the third quarter of 1996. As provided in Table 2-2, no VOCs were detected among the three groundwater samples extracted from the deep aquifer. As a result, the presence of VOCs in the Castle Hayne Aquifer at Site 78 will not be addressed. In addition, these results and previous results (provided in Attachment E) imply that volatile contaminants have not begun to migrate vertically from the shallow aquifer to the deep aquifer.

2.2.2.1 Selected Total Metals

Iron, lead and manganese were detected among the deep groundwater samples obtained at Site 78. Lead and manganese were each detected twice among the three deep groundwater samples; iron was detected in each of the three samples. A complete positive detection summary for total metals in groundwater is provided in Table 2-2. Iron was the only total metal detected at a concentration in excess of either state or federal screening standards. Iron exceeded the NCWQS of 330 µg/L with a concentration of 1,810 µg/L in the sample obtained from deep monitoring well 78-GW24DW. Iron has been detected in well 78-GW24DW during previous quarterly sampling events at concentrations ranging from 105 to 196 µg/L. Although a marked increase in the concentration of iron from previous sampling efforts was noted, the observed levels are indicative of natural site conditions rather than disposal activities. In general, higher concentrations of total metals are typically noted in samples obtained from the undifferentiated surficial formation.

2.2.2.2 Suspended and Dissolved Solids

Both TSS and TDS analyses were performed for each of the three groundwater samples obtained at Site 78. Suspended solids were reported at concentrations ranging from not detected to 12 mg/L in the deep groundwater samples. Dissolved solids were detected in each sample, at concentrations ranging from 130 to 200 mg/L. None of the dissolved solid detections exceeded the NCWQS of 500 mg/L.

3.0 TREATMENT SYSTEM EVALUATION

Since December 1994, two groundwater extraction and treatment systems have been operating at Site 78. The systems were designed to collect and treat VOC-contaminated shallow groundwater from both the northern and southern portions of the site. The systems were also designed to mitigate the potential for contaminant migration.

As depicted in Figure 3-1, the northern treatment system currently includes two active recovery wells (RW-10 and RW-11) and four inactive recovery wells (RW-1, RW-2, RW-3, and RW-4). 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). Groundwater extracted by the six active recovery wells is treated at either the northern or southern treatment plant, then discharged to the Hadnot Point Sewage Treatment Plant. The five inactive recovery wells were taken off-line because they were not collecting contamination. These inactive wells, however, are being sampled as part of the Site 78 monitoring program.

The following treatment system evaluation is divided into two sections. The first section focuses on system components located within each treatment plant. These "in-plant components" include oil and water separators, metals removal systems, low-profile air strippers, and liquid-phase carbon adsorption units. The second section focuses on the groundwater recovery components that are located outside of each treatment plant. These recovery components include recovery wells, piping, and pumps.

3.1 In-Plant Components

Both the northern and southern treatment plants contain oil and water separators; metals removal systems including floc tanks, settling tanks, and sand filters; low profile air strippers; and liquid-phase carbon adsorption units. Monitoring activities at both treatment plants include sampling of plant influent, plant effluent, oil and water separator effluent, sand filter effluent, and air stripper effluent. Tables 3-1 and 3-2 present September and October 1996 sampling results for the northern and southern treatment plants, respectively. Appendix F contains the Remedial System Maintenance Report prepared by OHM Remediation Services Corporation. The following assessment of the treatment components is based on monthly sampling results from January through October 1996.

Analytical results indicate that in-plant treatment components at both the northern and southern plants are functioning effectively. The treatment components are either treating contamination to the remediation levels or eliminating contamination altogether. The plant influent has consistently contained the VOCs trans-1,2-dichloroethene, trichloroethylene, vinyl chloride, benzene, and cis-1,2-dichloroethylene at concentrations exceeding remediation levels. Based on VOC concentrations in the air stripper effluent, the air stripper has successfully treated these contaminants to concentrations that are below the remediation levels, and in most cases, below the detection levels. Similarly, VOC concentrations in the plant effluent have been below the remediation levels and, frequently, below the detection levels. This indicates that VOC treatment is functioning effectively. In addition to VOCs, plant influent has consistently contained metals and suspended solids. Based on sampling results for the sand filter effluent, metals concentrations have been reduced to below the remediation levels and suspended solids have been reduced to below the discharge limits. These results indicate that the metals removal systems are also functioning effectively. Finally, oil and grease influent concentrations have typically been below the discharge limit of 1.00 ppm. As a result, the effectiveness of the oil and water separators cannot be adequately determined at this time.

3.2 Groundwater Recovery Components

The two active northern recovery wells (RW-10 and RW-11) are situated within a portion of the contaminant plume which exhibited relatively high concentrations of VOCs. As a result, these wells have been extracting concentrations of VOCs in groundwater at nearly the same rate and efficiency. However, recovery wells RW-10 and RW-11 are located approximately 100 feet and 500 feet upgradient of monitoring well 78-GW23 where VOCs were also detected at levels well above water quality standards. A recovery well placed closer to 78-GW23 may be expected to remove similar VOC concentrations from the surfical aquifer.

The southern recovery wells are situated in a line as a downgradient contaminant barrier; the wells are positioned to limit contaminant migration and will intercept the contaminated plume as it travels in the direction of groundwater flow. Because the southern recovery wells are located at the downgradient edge of the contaminant plume, these recovery wells have been extracting groundwater with relatively low VOC concentrations. Recovery wells RW-5 and RW-6 have been removing VOCs at relatively higher concentrations than wells RW-7 and RW-8 because they are located closer to the most highly contaminated portion of the suspected contaminant plume.

Compared to the southern recovery system, the northern recovery system has been extracting higher VOC concentrations. The northern recovery system is positioned in the portion of the suspected contaminant plume that contains relatively higher VOC concentrations. The southern recovery system, however, is positioned at the downgradient edge of the suspected contaminant plume rather than within the most highly contaminated area. Groundwater samples collected from both of the inactive northern recovery wells did not exhibit VOCs.

In October 1996, northern recovery wells RW-10 and RW-11 were pumping at a combined rate of 5.8 gpm. Southern recovery wells RW-5, RW-6, RW-7, and RW-8 were pumping at a combined rate of 14 gpm. Both the northern and the southern treatment plants were designed to handle a maximum influent of 80 gpm. Because the actual pumping rates are lower than 80 gpm, the treatment systems are currently operating below their maximum capacity. Based on past experience at MCB Camp Lejeune, a 100-foot radius of influence can be expected for a recovery well that is pumping at 5 gpm (Baker, April 1996). For the recovery wells at Site 78, the most recently observed pumping rates were between 2.9 and 3.5 gpm. Thus, a radius of influence closer to 75 feet may be expected for each recovery well at Site 78.

4.0 RECOMMENDATIONS

Based upon the observations and findings presented in Sections 1.0, 2.0, and 3.0 of this quarterly 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 (Baker, 1994), 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.

4.1 Modify Sample Analyses

The sections which follow detail recommended modifications to the analytical requirements of the monitoring program at OU No.1.

4.1.1 Modify Site 24 Sample Analyses

The ROD for OU No. 1 stipulates that groundwater samples from both monitoring and supply wells be collected quarterly and analyzed for VOCs, total metals, dissolved solids, and suspended solids. The contaminant of concern in groundwater at Site 24, however, was identified during the Remedial Investigation (RI) as heptachlor epoxide. The pesticide heptachlor epoxide was detected in groundwater samples collected from shallow monitoring wells 24-GW08, 24-GW09, and 24-GW10. These same wells are identified in the ROD for inclusion in the monitoring program at OU No. 1. Heptachlor epoxide was detected in each of the three wells at concentrations exceeding the NCWQS of 0.004 µg/L, but less than the Federal Maximum Contaminant Level (MCL) of 0.2 µg/L. Based upon this information, it is recommended that future samples obtained from shallow monitoring wells 24-GW08, 24-GW09, and 24-GW10 be submitted for pesticide analyses. Because VOCs and have not been detected, it is also recommended that volatile organic analyses be eliminated from the monitoring program at Site 24.

Analytical results from soil samples collected throughout Site 24 during the RI confirm the presence of pesticides. 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. A low-flow purge method is now used during sample collection to reduce the amount of suspended material in samples and more accurately reflect true aquifer conditions. Because of the low-flow purge method, it is unlikely that any pesticides will be detected in future groundwater samples. If the lack of groundwater pesticide contamination is confirmed, possibly after three sampling events, pesticide samples from Site 24 should no longer be necessary.

4.1.2 Modify Site 78 Sample Analyses

Groundwater samples collected throughout Site 78 are currently submitted for oil and grease analyses. As indicated above, the ROD for OU No.1 stipulates only that samples be collected quarterly and analyzed for VOCs, total metals, dissolved solids, and suspended solids. Oil and grease analyses were added to the monitoring program in response to engineering requirements of the groundwater treatment system. However, only the treatment plant influent and effluent need be submitted for oil and grease analyses as an indicator of oil and water separator efficiency. In addition, concentrations of oil and grease compounds were not detected among any of the most recent sampling results. Analytical results from previous monitoring events at Site 78 suggest that oil and grease compounds have been detected infrequently and at concentrations less than 15 mg/L. Based

upon this information, it is recommended that groundwater samples no longer be submitted for oil and grease analyses.

4.2 Adjust Groundwater Sampling Scheme

The sections which follow describe a number of recommended adjustments to the monitoring program at Site 78. These adjustments pertain to the number and locations of groundwater sampling points utilized during the monitoring program. Two primary areas of groundwater contamination have been identified and are actively undergoing treatment at Site 78. The recommended adjustments are intended to improve the effectiveness of treatment systems already in place and provide necessary analytical data in support of the selected remedy.

4.2.1 Discontinue Sampling Inactive Recovery Wells

As presented in Section 1.0, recovery wells RW-1 through RW-4 and RW-9 are being sampled as part of the monitoring program at Site 78. These five recovery wells, however, are not actively extracting groundwater for treatment. Recovery wells RW-1 through RW-4 and RW-9 were deactivated as a result of low influent contaminant concentrations. In fact, sampling results obtained since the inception of monitoring program activities at Site 78 suggest that little to no contamination has been present within the identified recovery wells. Based upon this information, it is recommended that the identified recovery wells not be sampled as part of the monitoring program at Site 78.

Additionally, samples collected from the recovery wells via the low-flow sampling method may not accurately reflect true contaminant concentrations in groundwater. The low-flow sampling method, employed throughout MCB Camp Lejeune, does not remove a sufficient volume of groundwater at the minimum required rate from the larger diameter recovery wells.

4.2.2 Discontinue Sampling Selected Monitoring Wells

As presented in Section 1.0, monitoring well 78-GW22-1 is located within the former fuel farm area. Petroleum-related contaminants have consistently been detected at concentrations exceeding applicable water quality standards within groundwater samples obtained from well 78-GW22-1 during the monitoring program. The former fuel farm is being addressed as part of the UST Program at MCB Camp Lejeune and an active product recovery system is in operation within 250 feet of monitoring well 78-GW22-1. It is therefore recommended that groundwater samples not be retained for analysis in the future from 78-GW22-1.

At least two additional monitoring wells, included in the quarterly monitoring program, are situated adjacent to other unrelated areas of concern. Monitoring well 78-GW05 is located within 200 feet of IR Site 94 and well 78-GW19 is situated near a UST site associated with Building 1115. Samples collected from both monitoring wells 78-GW05 and 78-GW19 have exhibited concentrations of organic compounds below 2 µg/L. Site 94 and the former UST at Building 1115, however, are being or are planned to be addressed as part of other investigations. Based upon this information, it is recommended that groundwater samples not be collected from wells 78-GW05 and 78-GW19 as part of the monitoring program at Site 78.

Samples obtained from deep monitoring well 78-GW31-3 have exhibited little to no contamination during the previous five monitoring events. Toluene was the only organic compound detected among the samples obtained from 78-GW31-3. During the second quarter of 1996 toluene was detected at

a concentration of 1.1 µg/L. The NCWQS for toluene is 1,000 µg/L. It is therefore recommended that no additional samples be obtained from deep monitoring well 78-GW31-3 during the monitoring program.

4.2.3 Commence Sampling Active Supply Well

As mentioned, the ROD for OU No.1 specifies that groundwater samples be obtained from the eight supply wells located within or adjacent to Site 78. Seven of those eight supply wells have either been abandoned or are scheduled to be abandoned within the next few months. The one remaining supply well, HP-642, is operational and there are no plans for it to be abandoned. Based upon the selected remedy presented in the ROD for OU No. 1, it is recommended that HP-642 be sampled and that the changes due to supply well abandonment be recorded in a post-decision document file.

No contaminants were identified in the Castle Hayne Aquifer during the most recent sampling event at Site 78. Based upon a lack of organic compounds in the deeper aquifer below the most contaminated portions of Site 78, the need for corroborating evidence from even deeper supply wells is questionable. If the lack of organic contamination in the Castle Hayne Aquifer is confirmed, possibly after three sampling events, samples from supply well HP-642 should no longer be necessary. In addition, samples from all base supply wells are collected and submitted for laboratory analysis on an annual basis.

4.2.4 Locate and Commence Sampling Additional Monitoring Wells

Additional monitoring wells within the northern and southern contaminant plume areas should be identified for future sampling. Monitoring wells installed as part of any number of unrelated investigations should be employed to better define the extent of the two suspected groundwater contaminant plumes. Any additional sampling data acquired from supplemental investigations would also aid in the placement of future recovery wells. A Groundwater Monitoring Well Coverage Plan is currently being prepared for MCB Camp Lejeune. Information presented in the Groundwater Monitoring Well Coverage Plan document will be used to identify other existing monitoring wells within Site 78. Additional monitoring wells, however, may need to be installed in the future if an adequate amont of supplemental data can not be acquired.

4.3 Abandon Shallow Monitoring Well

Recorded field observations suggest that shallow monitoring well 78-GW22-1 has begun to deteriorate or was poorly constructed during the 1986 Confirmation Study. Soil particles from the surrounding undifferentiated formation have entered the well, most likely bypassing the screen and sandpack. Sediments, as a result, have been introduced into groundwater samples obtained from 78-GW22-1. The presence of soil particles in groundwater samples obtained from well 78-GW22-1 may have biased total metal analytical results. As cited, a number of total metals have been detected at concentrations exceeding both state and federal screening standards in samples obtained during the monitoring program from 78-GW22-1. Monitoring well 78-GW22-1 is located within the former fuel farm area and has also exhibited concentrations of petroleum contaminants far in excess of applicable water quality standards. In addition, the former fuel farm is actively being addressed as part of the UST Program at MCB Camp Lejeune and several monitoring wells are located within close proximity of 78-GW22-1. Section 4.2 recommends that groundwater samples not be collected from well 78-GW22-1 during the monitoring program. Based upon this information, it is recommended that well 78-GW22-1 be abandoned according to accepted procedures.

Additional wells located throughout OU No.1 and associated with Sites 21, 24, and 78 may also be abandoned, once the need for future supplemental analytical data is determined.

4.4 Install Additional Recovery Wells

As indicated in Section 3.0, 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. Three 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. It is therefore recommended that at least one recovery well be added to the southern treatment system. The additional recovery well should be installed adjacent to or immediately downgradient of monitoring well 78-GW09. Groundwater samples obtained from 78-GW09 have consistently exhibited the highest concentrations of chlorinated solvents within the southern portion of Site 78. Continued groundwater monitoring activities and treatment system analyses may, in the future, require that additional recovery wells be installed within the southern contaminant plume.

The northern treatment system is actively eliminating groundwater contaminants extracted from two recovery wells (RW-10 and RW11) within the northern chlorinated solvent plume. Although both active recovery wells are extracting contamination from the surficial aquifer, they are 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 54 to 360 µg/L in each of the previous five samples obtained from well 78-GW23 during the monitoring program. The radii of influence of RW-10 and RW-11, however, do not intercept 78-GW23. Based upon this information, it is recommended that at least one additional recovery well be installed near 78-GW23 to extract contaminated groundwater from the northern chlorinated solvent plume. Continued groundwater monitoring activities and treatment system analyses may, in the future, require that additional recovery wells be installed within the northern contaminant plume.

The depth, design, and general construction of any additional recovery wells should be similar to the existing recovery wells currently operating as part of the northern and southern treatment systems. The additional recovery wells could be incorporated with existing systems after a minimal number of upgrades. As presented in Section 3.0, both treatment systems are capable of accepting additional untreated influent. If additional recovery wells are to be added to the treatment system, details concerning their placement and design can be provided at that time.

4.5 Maintain Well Security and Aesthetics

A majority of the monitoring wells at Site 78 that were installed during the 1986 Confirmation Study have begun to show signs of deterioration. The bollards and protective casings of several wells have developed peeling paint and rust. In addition, a number of the padlocks used to secure the protective covers are either missing or no longer function properly. Both the usability and security of each monitoring well should be maintained if they are going to remain reliable groundwater sample collection points in the future. As suggested, the bollards and well casings should be painted with a weather and rust resistant paint. New protective locking covers should be installed on the wells currently without means of limiting access. New padlocks that operate with a universal key should be installed on each of the monitoring wells at Sites 24 and 78.

5.0 REFERENCES

Baker Environmental, Inc. (Baker). October 1996. Corrective Action Plan for Operable Unit No. 1 (Sites 21, 24, and 78). Revised Final. Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

Baker Environmental, Inc. (Baker). April 1996. Basewide Groundwater Remediation Study (BRAGS). Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

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

Baker Environmental, Inc. (Baker). June 1994a. 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). 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.

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 No. 49-02036.

OHM Remediation Services Corporation. November 1996. Work Plan for Systems Cleaning for North and South Groundwater Treatment Plants, Operable Unit 1, Site 78. Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

TABLES

TABLE 1-1

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

Well Number/ Date of Measurement	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen	Specific Conductance µmhos/cm	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U)
24-GW08	1815	1.0	2.55	260	18.4	6.06	9.09
	1821	1.5	2.95	201.6	18.4	6.02	19.7
	1831	2.0	2.65	212.7	18.1	6.04	13.5
	1868	2.5	2.45	218.0	17.9	6.05	7.10
	1846	3.0	2.50	218.7	17.9	6.07	5.18
24-GW09	1200	1.0	2.80	110.2	18.6	4.32	38.4
	1212	1.5	2.50	116.7	18.2	4.41	9.12
	1224	2.0	2.15	120.1	18.1	4.45	6.11
	1236	2.5	1.80	122.0	18.1	4.45	4.26
	1248	3.0	1.75	122.0	17.7	4.49	3.29
24-GW10	1004	1.0	3.05	64.5	17.6	4.52	4.55
	1012	1.5	2.80	67.1	17.3	4.41	2.44
	1020	2.0	2.60	65.9	17.2	4.41	1.42
	1028	2.5	2.40	64.8	17.0	4.41	1.35
	1036	3.0	2.40	65.7	17.0	4.40	1.39
78-GW01	1705	1.0	2.70	480	21.8	5.01	185.2
	1715	2.0	2.70	459.7	21.5	5.09	83.9
	1725	3.0	2.90	457.2	21.3	5.12	17.92
78-GW04-1	1808	1.0	2.00	228.7	28.3	5.97	>200
	1818	2.0	2.80	217.9	28.1	6.17	149.7
	1828	3.0	2.50	212.2	27.8	6.10	42.1
	1839	4.0	--	214.3	27.5	6.28	39.0
78-GW05	0935	1.0	2.30	512	23.4	5.55	3.35
	1950	2.0	2.30	484	22.9	5.52	2.93
	2005	3.0	2.20	487	22.8	5.56	3.43
78-GW08	1054	1.0	2.50	158.7	22.4	6.08	>200
	1107	2.0	2.50	164.7	22.7	6.29	>200
	1120	3.0	3.20	164.5	22.3	6.44	>200
	1127	4.0	3.10	166.1	22.1	6.45	167.5
	1141	5.0	3.00	166.8	22.5	6.52	88.4
	1052	6.0	--	166.3	22.8	6.54	57.4
78-GW09-1	1745	1.0	3.50	364.0	21.1	5.70	11.78
	1749	1.5	2.80	399.1	20.6	6.15	18.36
	1753	2.0	--	405.5	20.5	6.22	8.80
	1756	2.5	3.00	406.1	20.8	6.23	3.85
	1800	3.0	3.80	400.2	20.6	6.23	2.17

TABLE 1-1 (Continued)

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

Well Number/ Date of Measurement	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen	Specific Conductance µmhos/cm	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U)
78-GW09-2	1415	0.5	2.10	543	23.0	7.25	4.08
	1430	1.0	1.50	555	22.4	7.31	2.59
	1445	1.5	1.70	562	22.0	7.53	1.57
	1500	2.0	1.80	561	22.3	7.59	2.80
	1515	2.5	1.60	564	22.0	7.56	0.86
	1530	3.0	1.70	567	22.0	7.61	0.83
78-GW09-3	0820	0.5	2.10	359.6	22.4	11.20	1.60
	0855	1.0	2.30	374.3	22.2	11.17	1.89
	0925	15.0	2.10	388.1	22.5	11.15	1.82
	0950	2.0	2.20	392.4	22.7	11.12	1.84
	1020	2.5	2.10	414.1	22.4	11.06	1.92
	1050	3.0	2.20	423.1	22.9	11.08	1.46
78-GW10	0747	1.0	6.00	218.5	22.5	6.53	107.8
	0757	2.0	6.00	218.4	22.5	6.59	50.7
	087	3.0	5.90	219.4	22.7	6.55	20.6
78-GW-11	1116	1.0	2.80	95.1	22.3	4.73	51.4
	1122	2.0	2.40	90.3	22.2	4.75	23.9
	2235	3.0	2.50	92.1	22.2	4.62	34.5
	1142	4.0	2.80	89.2	22.6	4.76	>200
78-GW14	0735	1.0	2.10	221.2	21.7	3.75	16.4
	0740	1.5	1.90	220.6	21.7	3.76	32.4
	0745	2.0	1.90	224.3	22.3	3.81	17.4
	0750	2.5	1.80	223.8	21.6	3.78	10.4
	0755	3.0	1.90	224.4	21.7	3.78	8.3
78-GW15	1905	1.0	6.30	232.1	24.6	5.57	21.3
	1910	2.0	6.00	227.7	24.4	5.75	8.5
	1920	3.0	--	224.0	24.4	5.89	3.8
78-GW17-1	1248	1.0	5.80	479.7	24.7	6.78	1.21
	1306	2.0	6.10	469.7	23.7	6.80	8.58
	1318	3.0	6.00	467.6	23.6	6.75	4.74
78-GW19	1055	1.0	6.00	216.3	23.0	4.38	3.89
	1110	2.0	5.90	221.4	22.1	4.46	2.50
	1125	3.0	6.00	224.3	23.2	4.47	1.89
78-GW21	1030	1.0	2.80	222.4	25.2	5.03	1.91
	1045	2.0	3.00	222.3	24.7	5.05	0.83
	1100	3.0	2.60	221.4	25.0	5.03	0.37

TABLE 1-1 (Continued)

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

Well Number/ Date of Measurement	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen	Specific Conductance µmhos/cm	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U)
78-GW22	0920	1.0	2.20	412.4	21.9	6.25	1.53
	0930	2.0	2.50	416.3	22.2	6.38	1.36
	0940	3.0	2.30	421.3	22.3	6.33	1.71
78-GW22-1	1820	1.0	2.50	207.9	22.0	5.30	>200
	1840	2.0	--	235.3	21.9	5.61	>200
	1900	3.0	--	238.1	22.4	5.46	>200
78-GW23	1258	1.0	2.30	180.0	22.9	4.52	23.8
	1308	2.0	2.10	176.7	22.4	4.63	50.2
	1318	3.0	2.20	178.4	21.7	4.64	24.0
	1328	4.0	2.30	179.8	22.3	4.58	21.6
	1338	5.0	2.30	179.5	22.2	4.59	19.5
78-GW24-1	1815	1.0	1.70	252.4	22.6	5.50	28.5
	1827	2.0	1.80	239.7	22.5	5.40	24.6
	1837	3.0	1.90	234.9	22.6	5.37	12.3
78-GW24-2	0725	0.5	1.90	462.2	21.5	7.06	5.28
	0740	1.0	1.80	434.4	21.4	7.20	21.6
	0755	1.5	2.10	436.2	21.6	7.19	39.2
	0810	2.0	1.80	441.8	22.0	7.31	26.6
	0825	2.5	1.80	438.4	21.5	7.22	15.68
	0840	3.0	1.90	438.5	21.7	7.36	11.53
78-GW24-3	1452	1.0	2.30	329.6	21.3	7.29	30.2
	1515	2.0	2.10	338.4	21.7	7.42	19.3
	1530	3.0	2.20	336.2	21.5	7.36	11.1
78-GW25	1918	1.0	3.10	201.2	20.4	5.28	10.5
	1927	2.0	2.50	191.2	20.1	5.36	4.3
	1938	3.0	2.70	194.8	20.1	5.36	2.60
78-GW31-3	0815	1.0	3.55	202	22.7	9.93	17.25
	0830	2.0	1.75	628	22.3	11.54	11.70
	0840	3.0	1.60	702	21.9	10.85	12.13
	0850	4.0	1.70	701	21.9	11.07	11.68
	0900	5.0	1.60	705	21.6	10.93	10.71
	0910	6.0	1.70	708	21.7	10.87	10.85
	0920	7.0	1.65	710	22.1	10.83	10.93
	0930	8.0	1.70	703	22.3	10.74	10.15

TABLE 1-1 (Continued)

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

Well Number/ Date of Measurement	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen	Specific Conductance µmhos/cm	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U)
78-GW39	0730	1.0	5.10	175.4	20.2	4.47	3.54
	0740	1.5	5.10	177.8	20.1	4.34	2.94
	0750	2.0	5.30	179.7	20.6	4.36	2.91
	0800	2.5	5.20	185.8	20.3	4.33	3.82
	0810	3.0	5.10	184.9	20.1	4.34	2.51
RW-1	1440	1.0	2.00	251.8	26.0	4.92	9.87
	1450	2.0	1.90	246.7	25.1	5.02	7.78
	1500	3.0	2.40	252.2	25.3	5.08	5.64
	1510	4.0	2.10	252.4	25.4	5.15	5.14
	1520	5.0	2.00	254.7	25.2	5.17	5.07
RW-2	1507	0.5	2.80	219	24.3	5.28	1.06
	1524	.75	2.80	234	23.3	5.29	0.83
	1538	1.0	3.10	238	23.6	5.37	0.85
	1548	1.25	3.40	243	23.3	5.42	0.94
	1600	1.5	3.60	247	23.4	5.62	0.75
	1624	2.0	3.50	253	23.5	5.70	0.86
	1630	2.5	3.40	254	23.6	5.68	0.89
RW-3	0845	1.0	2.70	423.0	23.6	5.76	21.3
	0855	2.0	2.80	416.8	23.3	5.85	14.3
	0905	3.0	2.70	404.3	23.0	5.89	13.2
	0915	4.0	2.70	400.6	23.6	5.94	12.6
	0925	5.0	2.70	398.2	23.7	5.96	11.3
RW-4	1600	1.0	2.80	395.6	22.1	3.78	4.62
	1610	2.0	2.40	373.3	21.3	3.88	2.55
	1620	3.0	2.10	380.7	21.8	3.93	4.43
	1630	4.0	2.20	373.9	22.3	3.95	5.39
	1640	5.0	2.40	376.2	22.4	3.92	4.86
RW-9	1010	1.0	3.70	330.5	26.2	5.74	129.8
	1020	2.0	3.60	327.9	25.9	5.80	117.1
	1030	3.0	3.60	330.6	25.9	5.88	125.2
	1040	4.0	3.60	334.5	26.1	5.94	122.9
	1050	5.0	3.70	333.8	26.2	6.00	112.6

Notes:

N.T.U. = Nephelometric Turbidity Units
S.U. = Standard Units
µmhos/cm = micro ohms per centimeter
°C = Degrees Centigrade
-- = Not recorded
RW = Recovery well

TABLE 1-2

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)
24GW08	1993	26.20	23.60	19.0	19.0	9.1-18.2	7.0	5.0	NA
24GW09	1993	16.55	13.80	12.5	12.5	2.6-11.7	1.5	0.5	NA
24GW10	1993	19.33	17.30	18.0	18.0	8.0-17.2	6.0	4.0	NA
78GW01	1986	NA	NA	27.0	25.0	5.0-25.0	3.0	2.0	1.8
78GW04-1	1986	31.63	28.90	27.0	24.5	4.5-24.5	3.0	2.0	2.6
78GW05	1986	28.63	26.10	27.0	25.0	5.0-25.0	3.0	2.0	1.97
78GW08	1986	28.72	26.30	27.0	25.0	5.0-25.0	3.0	2.0	3.12
78GW09-1	1987	NA	NA	27.0	25.0	5.0-25.0	3.0	2.0	2.35
78GW09-2	1987	27.60	25.40	152.0	150.0	130.0-150.0	105.0	100.0	1.92
78GW09-3	1986	26.97	24.70	152.0	150.0	130.0-150.0	105.0	10.0	2.25
78GW10	1986	28.13	25.70	27.0	25.0	5.0-25.0	3.0	2.0	2.22
78GW11	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	0.08
78-GW17-1	1986	30.00	27.50	25.5	25.0	5.0-25.0	3.0	2.0	2.16
78-GW19	1986	29.07	26.50	25.5	25.0	5.0-25.0	3.0	3.0	2.19
78-GW21	1986	33.51	31.20	25.0	25.0	5.0-25.0	3.0	2.0	NA
78-GW22	1986	32.36	30.40	25.0	25.0	5.0-25.0	3.0	2.0	NA
78-GW22-1	1986	31.49	29.50	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	56.59-76.59	51.6	48.6	2.88
78-GW24-3	1987	32.32	30.50	155.0	148.2	128.17-148.17	90.0	84.0	2.24

TABLE 1-2 (Continued)

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)
78-GW25	1986	32.58	30.10	25.5	25.0	5.0-25.0	5.0	3.0	2.17
78-GW31-3	1993	25.99	26.30	148.0	153.0	140.0-153.0	1365.0	133.0	-0.46
78-GW39	1993	19.44	16.80	20.0	20.0	10.0-20.0	8.0	6.0	19.44
RW-1[(1)]	1994	NA	NA	25.0	25.0	10.0-25.0	8.0	2.0	0
RW-2[(1)]	1994	NA	NA	25.0	25.0	10.0-25.0	8.0	2.0	0
RW-3[(1)]	1994	NA	NA	25.0	25.0	10.0-25.0	8.0	2.0	0
RW-4[(1)]	1994	NA	NA	25.0	25.0	10.0-25.0	8.0	2.0	0

Notes:

[(1)] Recovery well construction details are approximate.

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

TABLE 1-3

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]	TAL Metals[2]	Oil & Grease[3]	Total Dissolved Solids[4]	Total Suspended Solids[4]	Sample Identification
24-GW08	GW	X	X	X	X	X	24-GW08-96C
24-GW09	GW	X	X	X	X	X	24-GW09-96C
24-GW10	GW	X	X	X	X	X	24-GW10-96C
78-GW01	GW	X	X	X	X	X	78-GW01-96C
78-GW04-1	GW	X	X	X	X	X	78-GW04-96C
78-GW05	GW	X	X	X	X	X	78-GW05-96C
78-GW08	GW	X	X	X	X	X	78-GW08-96C
78-GW09-1	GW	X	X	X	X	X	78-GW09-96C
78-GW09-2	GW	X	X	X	X	X	78-GW09IW-96C
78-GW09-3	GW	X	X	X	X	X	78-GW09DW-96C
78-GW10	GW	X	X	X	X	X	78-GW10-96C
78-GW11	GW	X	X	X	X	X	78-GW11-96C
78-GW14	GW	X	X	X	X	X	78-GW14-96C
78-GW15	GW	X	X	X	X	X	78-GW15-96C
78-GW17-1	GW	X	X	X	X	X	78-GW17-96C
78-GW19	GW	X	X	X	X	X	78-GW19-96C
78-GW21	GW	X	X	X	X	X	78-GW21-96C
78-GW22	GW	X	X	X	X	X	78-GW22A-96C
78-GW22-1	GW	X	X	X	X	X	78-GW22B-96C
78-GW23	GW	X	X	X	X	X	78-GW23-96C
78-GW24-1	GW	X	X	X	X	X	78-GW24-96C
78-GW24-2	GW	X	X	X	X	X	78-GW24IW-96C
78-GW24-3	GW	X	X	X	X	X	78-GW24DW-96C
78-GW25	GW	X	X	X	X	X	78-GW25-96C
78-GW31-3	GW	X	X	X	X	X	78-GW31DW-96C
78-GW39	GW	X	X	X	X	X	78-GW39-96C
RW-1	GW	X	X	X	X	X	78-EXW01-96C
RW-2	GW	X	X	X	X	X	78-EXW02-96C
RW-3	GW	X	X	X	X	X	78-EXW03-96C
RW-4	GW	X	X	X	X	X	78-EXW04-96C
RW-9	GW	X	X	X	X	X	78-EXW09-96C

Notes:

[1] Target Compound List Organics by U.S. Environmental Protection Agency (EPA) Method 8260.
[2] Selected Target Analyte List Metals (Antimony, Arsenic, Beryllium, Chromium, Iron, Lead, Manganese, Mercury, Nickel) by Solid Waste Method 6010.
[3] Oil and Grease by Solid Waste Method 9070.
[4] Total Suspended and Dissolved Solids by Solid Waste Method 846160.

GW = Groundwater
RW = Recovery Well
X = Requested Analyses

TABLE 1-4

ANALYTICAL METHOD DETECTION LIMITS
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Parameter	Analytical Method	MDL	NCWQS	MCL
Volatile Organics µg/L:				
Chloromethane	8260	0.5	NA	NA
Vinyl Chloride	8260	0.5[1]	0.015	2
Bromomethane	8260	0.5	NA	NA
Chloroethane	8260	0.5	NA	NA
1,1-dichloroethene	8260	0.5	7	7
Acetone	8260	2	700	NA
Carbon Disulfide	8260	2	700	NA
Methylene Chloride	8260	0.5	5	5
1,2-dichloroethene (Total)	8260	0.5	70	70
1,1-dichloroethane	8260	0.5	700	NA
2-butanone	8260	2	NA	NA
Chloroform	8260	0.5[1]	0.19	100
1,1,1-trichloroethane	8260	0.5	200	200
Carbon Tetrachloride	8260	0.5[1]	0.3	5
Benzene	8260	0.5	1	5
1,2-dichloroethane	8260	0.5[1]	0.38	5
Trichloroethene	8260	0.5	NA	5
1,2-dichloropropane	8260	0.5	0.56	5
Bromodichloromethane	8260	0.5	0.6	100
Cis-1,3-dichloropropene	8260	0.5	NA	NA
4-methyl-2-pentanone	8260	2	NA	NA
Toluene	8260	0.5	1000	1000
Trans-1,3-dichloropropene	8260	0.5[1]	0.2	NA
1,1,2-trichloroethane	8260	0.5	NA	5
Tetrachloroethene	8260	0.5	0.7	5
2-hexanone	8260	2	NA	NA
Dibromochloromethane	8260	0.5	NA	NA
Chlorobenzene	8260	0.5	50	100
Ethylbenzene	8260	0.5	29	700
Xylene, Total	8260	0.5	530	10000
Styrene	8260	0.5	100	100
Bromoform	8260	0.5[1]	0.19	100
1,1,2,2-tetrachloroethane	8260	0.5	NA	NA

TABLE 1-4 (Continued)

ANALYTICAL METHOD DETECTION LIMITS
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Parameter	Analytical Method	MDL	NCWQS	MCL
Metals (µg/L):				
Barium, Total	6010A	1.4	2000	2000
Beryllium, Total	6010A	0.7	NA	4
Cadmium, Total	6010A	2.6	5	5
Chromium, Total	6010A	3.3	50	100
Lead, Total	7421	1.2	15	15
Manganese, Total	6010A	1.6	NA	50
Wet Chemistry (mg/L):				
Total Dissolved Solids	SW846160.1	10	500	500
Total Suspended Solids	SW846160.2	5	NA	NA

Notes:

(1) Method Detection Limit greater than North Carolina Water Quality Standard

MCL = Federal Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system. (U.S. Environmental Protection Agency - Drinking Water Regulations and Health Advisories.)
MDL = Method Detection Limit
NA = Standard not available
NCWQS = North Carolina Water Quality Standards. Values Applicable to Groundwater (North Carolina Administrative Code, Title 15A, Subchapter 2L).
mg/L = Milligrams per liter or parts per million
µg/L = Micrograms per liter or parts per billion

TABLE 1-5

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 1 - SITE 24
INDUSTRIAL AREA FLY ASH DUMP
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation [1]	SWL (Date 7-30-96)	SWE (Date 7-30-96)
GW03	15.88	5.14	10.74
GW04	19.17	8.89	10.28
GW06	12.70	4.95	7.75
GW07	29.82	15.43	14.39
GW08	26.20	15.76	10.44
GW09	16.55	5.66	10.89
GW10	19.93	11.06	8.87

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 1-6

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 1 - SITE 78
HADNOT POINT INDUSTRIAL AREA
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation [1]	SWL (Date 8-9-96)	SWE (Date 8-9-96)
GW01	--	--	--
GW04-1	31.63	19.31	12.32
GW05	28.63	8.91	19.72
GW08	28.72	12.30	16.42
GW09-2	27.60	13.55	14.05
GW09-3	26.97	12.76	14.21
GW10	28.13	10.79	17.34
GW11	28.22	11.65	16.57
GW14	27.32	9.71	17.61
GW15	27.03	8.70	18.33
GW17-1	30.00	10.94	19.06
GW19	29.07	6.64	22.43
GW21	33.51	9.85	23.66
GW22	32.36	5.71	26.65
GW22-1	31.49	10.55	20.94
GW23	32.08	8.63	23.45
GW24-1	32.84	5.85	26.99
GW24-2	33.73	11.33	22.40
GW24-3	32.32	10.34	21.98
GW25	32.58	6.31	26.27
GW31-3	25.99	9.21	16.78
GW39	19.44	14.81	4.63

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 2-1

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

Fraction (units)	Detected Contaminants or Analytes	Comparison Criteria		Min.	Max.	Location of Maximum Detection	Detection Frequency	Detections Above		Qualitative Assessment of Positive Detections
		NCWQS	MCL					NCWQS	MCL	
Organics (µg/L)	Vinyl Chloride	0.015	2.0	10	240	GW23	2/31	2/31	2/31	2 Exceed Both Standards
	1,1-Dichloroethene	7.0	7.0	0.5	140	GW09	4/31	1/31	1/31	1 Exceeds Both Standards, South
	1,1-Dichloroethane	700	NE	52	52	GW09	1/31	0/31	NA	Did Not Exceed NCWQS, South
	1,2-Dichloroethene (Total)	70	70	2.0	8,900	GW23	6/31	3/31	3/31	3 Exceed Both Standards
	Chloroform	0.19	100	4.0	4.0	GW09	1/31	1/31	0/31	1 Exceeds NCWQS, South
	1,1,1-Trichloroethane	200	200	420	420	GW09	1/31	1/31	1/31	1 Exceeds Both Standards, South
	Trichloroethene	2.8	5	2.0	1,000	GW09	5/31	4/31	4/31	4 Exceed Both Standards
	Benzene	1.0	5	0.6	9,500	GW22-1	3/31	2/31	2/31	2 Exceed Both Standards, Former Fuel Farm
	Tetrachloroethene	0.7	5	0.8	1.0	GW39	2/31	2/31	0/31	2 Exceed NCWQS
	Toluene	1,000	1,000	0.7	19,000	GW22-1	4/31	1/31	1/31	1 Exceeds Both Standards, Former Fuel Farm
	Ethylbenzene	29	700	9.0	2,300	GW22-1	2/31	1/31	1/31	1 Exceeds Both Standards, Former Fuel Farm
	Xylene (Total)	530	10,000	0.7	11,000	GW22-1	3/31	1/31	1/31	1 Exceeds Both Standards, Former Fuel Farm
	Oil and Grease	NE	NE	ND	ND	NA	0/31	NA	NA	
Total Metals (µg/L)	Antimony, Total	NE	6.0	6.4	6.4	GW04	1/31	NA	1/31	1 Exceeds MCL, South
	Arsenic, Total	50	50	2.4	30	GW22-1	4/31	0/31	0/31	None Exceed Standards
	Beryllium, Total	NE	4.0	1.1	1.1	RW-4	1/31	NA	0/31	Did Not Exceed NCWQS, Recovery Well
	Chromium, Total	50	100	3.5	80	GW22-1	4/31	1/31	0/31	1 Exceeds NCWQS, Former Fuel Farm
	Iron, Total	300	NE	9.2	35,300	GW01	31/31	17/31	NA	17 Exceed NCWQS, Widely Scattered
	Lead, Total	15	15	1.3	112	GW22-1	15/31	2/31	2/31	2 Exceed Both Standards, Former Fuel Farm
	Manganese, Total	50	NE	1.8	159	RW-4	28/31	5/31	NA	5 Exceed NCWQS, Scattered
	Mercury, Total	1.1	2.0	0.15	0.15	GW22-1	1/31	0/31	0/31	Did not Exceed Standards, Former Fuel Farm
	Nickel, Total	100	100	28	28	GW22-1	1/31	0/31	0/31	Did not Exceed Standards, Former Fuel Farm

TABLE 2-1 (Continued)

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

Fraction (units)	Detected Contaminants or Analytes	Comparison Criteria		Min.	Max.	Location of Maximum Detection	Detection Frequency	Detections Above		Qualitative Assessment of Positive Detections
		NCWQS	MCL					NCWQS	MCL	
Wet Chemistry (mg/L)	Total Dissolved Solids	500	NE	54	350	GW05	30/31	0/31	NA	None Exceed NCWQS
	Total Suspended Solids	NE	NE	6.0	700	GW22-1	9/31	NA	NA	Maximum Detection Former Fuel Farm

Notes:

- Concentrations presented in micrograms per liter (µg/L) or parts per billion for organic and metal results, wet chemistry results presented in milligrams per liter (mg/L) or parts per million.

NA - Not applicable

NCWQS - North Carolina Water Quality Standards (North Carolina Administrative Code, Title 15A, Subchapter 2L).

ND - Not Detected

NE - Not Established

MCL - Federal Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system (U.S. Environmental Protection Agency - Drinking Water Regulations and Health Advisories).

TABLE 2-2
POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID DATE SAMPLED	24-GW08-96C 07/10/96	24-GW09-96C 07/11/96	24-GW10-96C 07/11/96	78-EXW01-96C 07/17/96	78-EXW02-96C 07/10/96	78-EXW03-96C 07/18/96	78-EXW04-96C 07/17/96
ORGANICS (ug/L)							
VINYL CHLORIDE	0.5 U	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	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
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-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	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
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	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	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	0.5 U
BENZENE	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
ETHYLBENZENE	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
OIL AND GREASE (mg/L)	5.3 U	5.6 U	5.3 U	5.8 U	5.2 U	5.8 U	5.4 U
TOTAL METALS (ug/L)							
ANTIMONY, TOTAL	2.6 U	2.6 U	2.6 U	2.4 U	2.6 U	2.4 U	2.4 U
ARSENIC, TOTAL	1.2 U	1.2 U	1.2 U	7.7	3.1	1.4 U	1.4 U
BERYLLIUM, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	1.1
CHROMIUM, TOTAL	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
IRON, TOTAL	184	313	25.8	8360	3610	5310	16000
LEAD, TOTAL	1.2 U	1.3	1.5	1.2 U	1.2 U	2.3	1.2 U
MANGANESE, TOTAL	3.7	76.2	1.6 U	68	8.6	34.7	159
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U
WET CHEMISTRY (mg/L)							
TOTAL DISSOLVED SOLIDS	88	54	10 U	150	150	270	250
TOTAL SUSPENDED SOLIDS	5 U	5 U	5 U	5 U	5 U	9	5 U

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

TABLE 2-2
POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	78-EXW09-96C	78-GW01-96C	78-GW04-96C	78-GW05-96C	78-GW08-96C	78-GW09-96C	78-GW09DW-96C
DATE SAMPLED	07/18/96	07/17/96	07/15/96	07/17/96	07/14/96	07/11/96	07/15/96
ORGANICS (ug/L)							
VINYL CHLORIDE	0.5 U	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	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
1,1-DICHLOROETHENE	0.5 U	0.5	0.5 U	0.5 U	0.5 U	140	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	52	0.5 U
1,2-DICHLOROETHENE (TOTAL)	2	18	0.5 U	0.5 U	0.5 U	620	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4	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
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	420	0.5 U
1,2-DICHLOROPROPANE	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	60	2	0.5 U	0.5 U	1000	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	0.5 U
BENZENE	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
ETHYLBENZENE	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
OIL AND GREASE (mg/L)	5.9 U	5.3 U	5.6 U	5.4 U	5.5 U	5.3 U	5.2 U
TOTAL METALS (ug/L)							
ANTIMONY, TOTAL	2.4 U	2.4 U	6.4	2.4 U	2.6 U	2.6 U	2.6 U
ARSENIC, TOTAL	2.4	1.4 U	1.4 U	1.4 U	1.4 U	1.2 U	1.4 U
BERYLLIUM, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
CHROMIUM, TOTAL	3.5	3.3 U	5.3	4.4	3.3 U	3.3 U	3.3 U
IRON, TOTAL	8300	35300	3550	146	482	44.2	9.2
LEAD, TOTAL	1.2 U	1.2 U	2.7	1.2 U	1.5	16.7	4.6
MANGANESE, TOTAL	45.8	49.5	24.7	55.2	6	3.9	1.6 U
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U
WET CHEMISTRY (mg/L)							
TOTAL DISSOLVED SOLIDS	240	350	200	350	140	250	190
TOTAL SUSPENDED SOLIDS	14	6	28	5 U	19	5 U	5 U

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

TABLE 2-2
POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID DATE SAMPLED	78-GW09IW-96C 07/11/96	78-GW10-96C 07/16/96	78-GW11-96C 07/15/96	78-GW14-96C 07/12/96	78-GW15-96C 07/14/96	78-GW17-96C 07/15/96	78-GW19-96C 07/16/96
ORGANICS (ug/L)							
VINYL CHLORIDE	0.5 U	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	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
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-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)	2	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
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	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	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	0.5 U
BENZENE	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	0.8
TOLUENE	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
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
OIL AND GREASE (mg/L)	5.4 U	5.4 U	5.4 U	6 U	5.3 U	5.5 U	5.4 U
TOTAL METALS (ug/L)							
ANTIMONY, TOTAL	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
ARSENIC, TOTAL	1.2 U	1.4 U	1.4 U	1.2 U	1.4 U	1.4 U	1.4 U
BERYLLIUM, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
CHROMIUM, TOTAL	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
IRON, TOTAL	508	156	1130	5380	54.9	76.3	264
LEAD, TOTAL	2.2	1.2 U	1.2 U	2.5	1.2 U	1.2 U	4.3
MANGANESE, TOTAL	23.2	1.8	4	24.3	4.2	1.6 U	14.4
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U	8.7 U
WET CHEMISTRY (mg/L)							
TOTAL DISSOLVED SOLIDS	300	140	64	98	130	310	120
TOTAL SUSPENDED SOLIDS	5 U	5 U	5 U	500	5 U	5 U	5 U

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

TABLE 2-2
POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID DATE SAMPLED	78-GW21-96C 07/17/96	78-GW22A-96C 07/17/96	78-GW22B-96CDLDL 07/17/96	78-GW23-96C 07/14/96	78-GW24-96C 07/16/96	78-GW24DW-96C 07/15/96	78-GW24IW-96C 07/17/96
ORGANICS (ug/L)							
VINYL CHLORIDE	0.5 U	0.5 U	50 U	240	10	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	50 U	5	1	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	0.5 U	50 U	8900	310	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	50 U	50	45	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	9500	17	0.6	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	19000	4	0.7	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	2300	9	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	11000	57	0.5 U	0.5 U	0.5 U
OIL AND GREASE (mg/L)	5.5 U	5.6 U	5.5 U	5.4 U	5.6 U	5.4 U	5.6 U
TOTAL METALS (ug/L)							
ANTIMONY, TOTAL	2.4 U	2.4 U	2.4 U	2.6 U	2.4 U	2.6 U	2.4 U
ARSENIC, TOTAL	1.4 U	1.4 U	30.1	1.4 U	1.4 U	1.4 U	1.4 U
BERYLLIUM, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
CHROMIUM, TOTAL	3.3 U	3.3 U	79.9	3.3 U	3.3 U	3.3 U	3.3 U
IRON, TOTAL	40.4	186	24600	3040	16600	1810	954
LEAD, TOTAL	1.2 U	1.2 U	112	3.2	1.2 U	3.1	2.4
MANGANESE, TOTAL	25	16.3	54.2	13.2	35.3	35.5	12.2
MERCURY, TOTAL	0.1 U	0.1 U	0.15	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	8.7 U	8.7 U	28	8.7 U	8.7 U	8.7 U	8.7 U
WET CHEMISTRY (mg/L)							
TOTAL DISSOLVED SOLIDS	120	280	200	140	160	200	280
TOTAL SUSPENDED SOLIDS	5 U	5 U	700	5 U	5 U	8	5 U

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

TABLE 2-2
POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	78-GW25-96C	78-GW31DW-96C	78-GW39-96C
DATE SAMPLED	07/16/96	07/11/96	07/18/96
ORGANICS (ug/L)			
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	0.5 U	0.5 U
CHLOROFORM	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	0.5 U	0.5 U	1
TOLUENE	0.5 U	0.5 U	1
ETHYLBENZENE	0.5 U	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	0.5 U	0.7
OIL AND GREASE (mg/L)	5.4 U	5.4 U	5.4 U
TOTAL METALS (ug/L)			
ANTIMONY, TOTAL	2.4 U	2.6 U	2.4 U
ARSENIC, TOTAL	1.4 U	1.2 U	1.4 U
BERYLLIUM, TOTAL	0.7 U	0.7 U	0.7 U
CHROMIUM, TOTAL	3.3 U	3.3 U	3.3 U
IRON, TOTAL	87.4	52.4	28.1
LEAD, TOTAL	1.2 U	2	1.2 U
MANGANESE, TOTAL	2.1	2.4	12.8
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	8.7 U	8.7 U	8.7 U
WET CHEMISTRY (mg/L)			
TOTAL DISSOLVED SOLIDS	110	130	140
TOTAL SUSPENDED SOLIDS	5 U	12	5 U

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

TABLE 2-3
TRIP BLANK ANALYTICAL RESULTS
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	78-TB01-96C	78-TB02-96C	78-TB03-96C	78-TB04-96C	78-TB05-96C
DATE SAMPLED	07/10/96	07/15/96	07/15/96	07/16/96	07/16/96
VOLATILES (ug/L)					
CHLOROMETHANE	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
VINYL CHLORIDE	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
METHYLENE CHLORIDE	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
CARBON DISULFIDE	2 U	2 U	2 U	2 U	2 U
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	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
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	2 U	2 U	2 U	2 U	2 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
BROMODICHLOROMETHANE	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
CIS-1,3-DICHLOROPROPENE	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
DIBROMOCHLOROMETHANE	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
BENZENE	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
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	0.5 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
TETRACHLOROETHENE	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
TOLUENE	0.5 U	0.5	0.5 U	0.6	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
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

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

TABLE 3-1

SAMPLING RESULTS - NORTHERN TREATMENT PLANT
SEPTEMBER AND OCTOBER 1996
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Contaminant	September 1996					October 1996				
	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										
trans-1,2-Dichloroethene	0.003	N/A	<0.0005	N/A	<0.0005	0.0007	N/A	<0.0005	N/A	<0.0005
Trichloroethylene	0.043	N/A	<0.0005	N/A	<0.0005	0.016	N/A	<0.0005	N/A	<0.0005
Vinyl Chloride	0.075	N/A	<0.0005	N/A	<0.0005	0.015	N/A	<0.0005	N/A	<0.0005
Benzene	0.071	N/A	<0.0005	N/A	<0.0005	0.0454	N/A	<0.0005	N/A	<0.0005
1,2-cis-Dichloroethylene	0.383	N/A	<0.0005	N/A	<0.0005	0.0498	N/A	<0.0005	N/A	<0.0005
Total Metals										
Antimony	<0.001	N/A	N/A	<0.001	<0.001	<0.001	N/A	N/A	<0.001	<0.001
Arsenic	<0.002	N/A	N/A	<0.002	<0.002	<0.002	N/A	N/A	<0.002	<0.002
Beryllium	<0.001	N/A	N/A	<0.001	<0.001	<0.001	N/A	N/A	<0.001	<0.001
Calcium	64.6	N/A	N/A	60.3	63.8	55.6	N/A	N/A	69.1	69.1
Chromium	<0.004	N/A	N/A	<0.004	<0.004	<0.004	N/A	N/A	<0.004	<0.004
Iron	9.55	N/A	N/A	0.533	0.105	<0.013	N/A	N/A	0.244	0.244
Lead	<0.001	N/A	N/A	0.011	0.006	0.004	N/A	N/A	<0.001	<0.001
Manganese	0.058	N/A	N/A	<0.001	<0.001	<0.001	N/A	N/A	<0.001	<0.001
Mercury	<0.0001	N/A	N/A	<0.0001	<0.0001	<0.0001	N/A	N/A	<0.0001	<0.0001
Nickel	0.007	N/A	N/A	<0.007	<0.007	<0.007	N/A	N/A	<0.007	<0.007
Wet Chemistry										
Oil & Grease	<1.00	<1.00	N/A	N/A	<1.00	<1.00	<1.00	N/A	N/A	N/A
Total Dissolved Solids (TDS)	236	N/A	N/A	246	250	208	N/A	N/A	198	198
Total Suspended Solids (TSS)	342	N/A	N/A	<1.00	5.00	69	N/A	N/A	1.00	1.00
pH	6.66	N/A	N/A	N/A	8.12	7.96	N/A	N/A	N/A	N/A

Note:

All concentrations are reported in milligrams per liter (mg/L).

TABLE 3-2

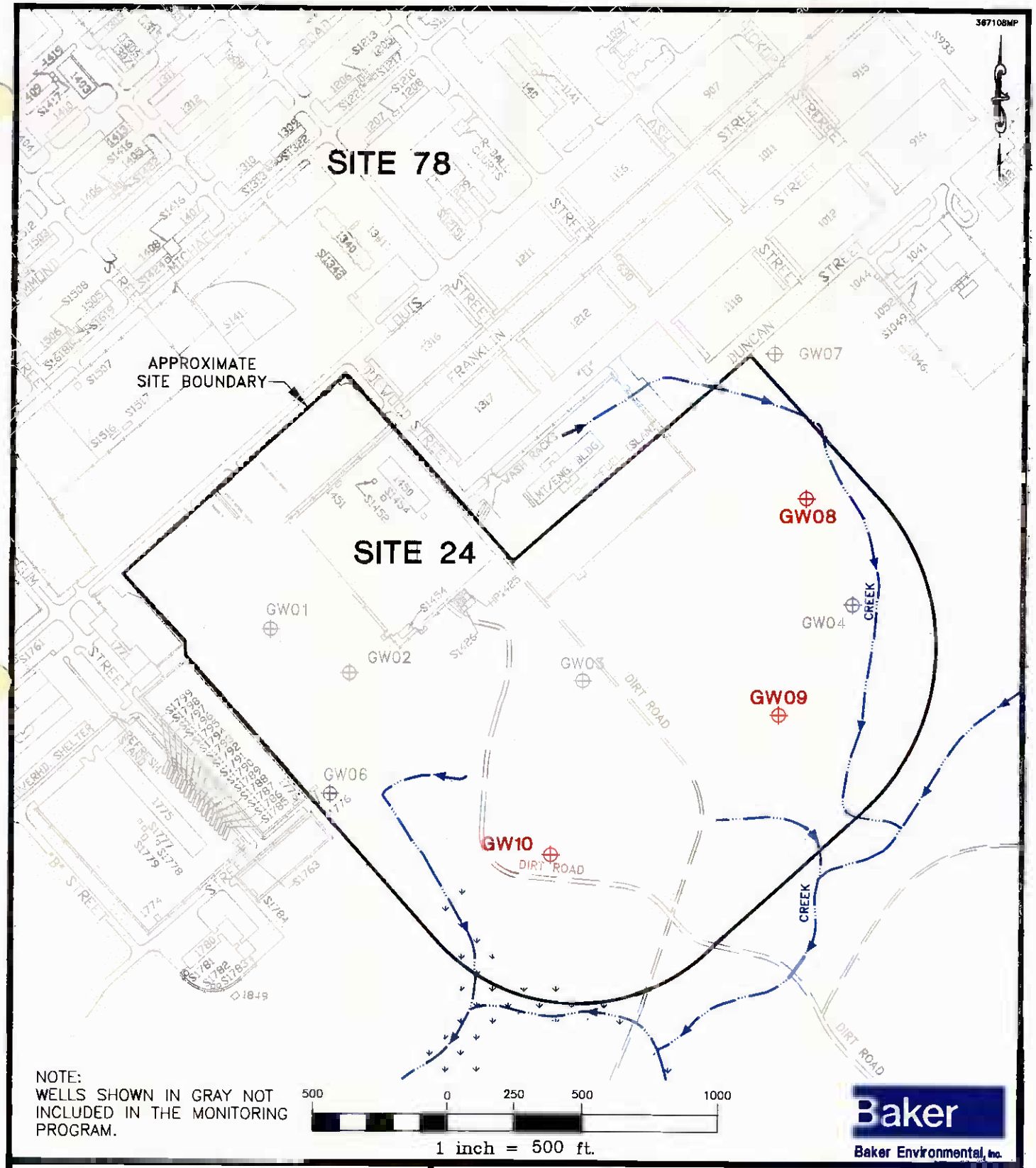
SAMPLING RESULTS - SOUTHERN TREATMENT PLANT
SEPTEMBER AND OCTOBER 1996
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Contaminant	September 1996					October 1996				
	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										
trans-1,2-Dichloroethene	<0.003	N/A	<0.0005	N/A	<0.0005	0.00078	N/A	<0.0005	N/A	<0.0005
Trichloroethylene	0.022	N/A	0.0005	N/A	<0.0005	0.03	N/A	<0.0005	N/A	<0.0005
Vinyl Chloride	<0.003	N/A	<0.0005	N/A	<0.0005	0.0006	N/A	<0.0005	N/A	<0.0005
Benzene	0.094	N/A	<0.0005	N/A	<0.0005	<0.0005	N/A	<0.0005	N/A	<0.0005
1,2-cis-Dichloroethylene	<0.003	N/A	<0.0005	N/A	<0.0005	0.153	N/A	<0.0005	N/A	<0.0005
Total Metals										
Antimony	<0.001	N/A	N/A	<0.001	<0.001	<0.001	N/A	N/A	<0.001	<0.001
Arsenic	<0.002	N/A	N/A	<0.002	<0.002	<0.002	N/A	N/A	<0.002	<0.002
Beryllium	<0.001	N/A	N/A	<0.001	<0.001	<0.001	N/A	N/A	<0.001	<0.001
Calcium	125	N/A	N/A	127	125	163	N/A	N/A	69.1	69.4
Chromium	<0.004	N/A	N/A	0.004	<0.004	<0.004	N/A	N/A	<0.004	<0.004
Iron	0.391	N/A	N/A	<0.013	0.391	0.502	N/A	N/A	0.244	0.501
Lead	0.003	N/A	N/A	<0.001	0.003	0.004	N/A	N/A	<0.001	<0.011
Manganese	0.026	N/A	N/A	<0.001	0.026	0.06	N/A	N/A	<0.001	<0.001
Mercury	<0.0001	N/A	N/A	<0.0001	<0.0001	<0.0001	N/A	N/A	<0.0001	<0.0001
Nickel	<0.007	N/A	N/A	<0.007	<0.007	<0.007	N/A	N/A	<0.007	<0.007
Wet Chemistry										
Oil & Grease	<1.00	<1.00	N/A	N/A	<1.00	<1.00	<1.00	N/A	N/A	<1.00
Total Dissolved Solids (TDS)	440	N/A	N/A	490	440	444	N/A	N/A	198	448
Total Suspended Solids (TSS)	6.00	N/A	N/A	<10.0	6.00	2.00	N/A	N/A	1.00	1.00
pH	7.26	N/A	N/A	N/A	7.26	7.17	N/A	N/A	N/A	8.27

Note:

All concentrations are reported in milligrams per liter (mg/L).

FIGURES



LEGEND

GW03 SHALLOW MONITORING WELL

APPROXIMATE DIRECTION OF SURFACE WATER FLOW

WATER FLOW

SOURCE: LANTDIV, FEB. 1992

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

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

Q1777.11.RIV

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

APPROXIMATE SITE BOUNDARY

RW-9 RW-8 RW-7 RW-6 RW-5 RW-4 RW-3 RW-2 RW-1

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

APPROXIMATE SITE BOUNDARY

SITE 78

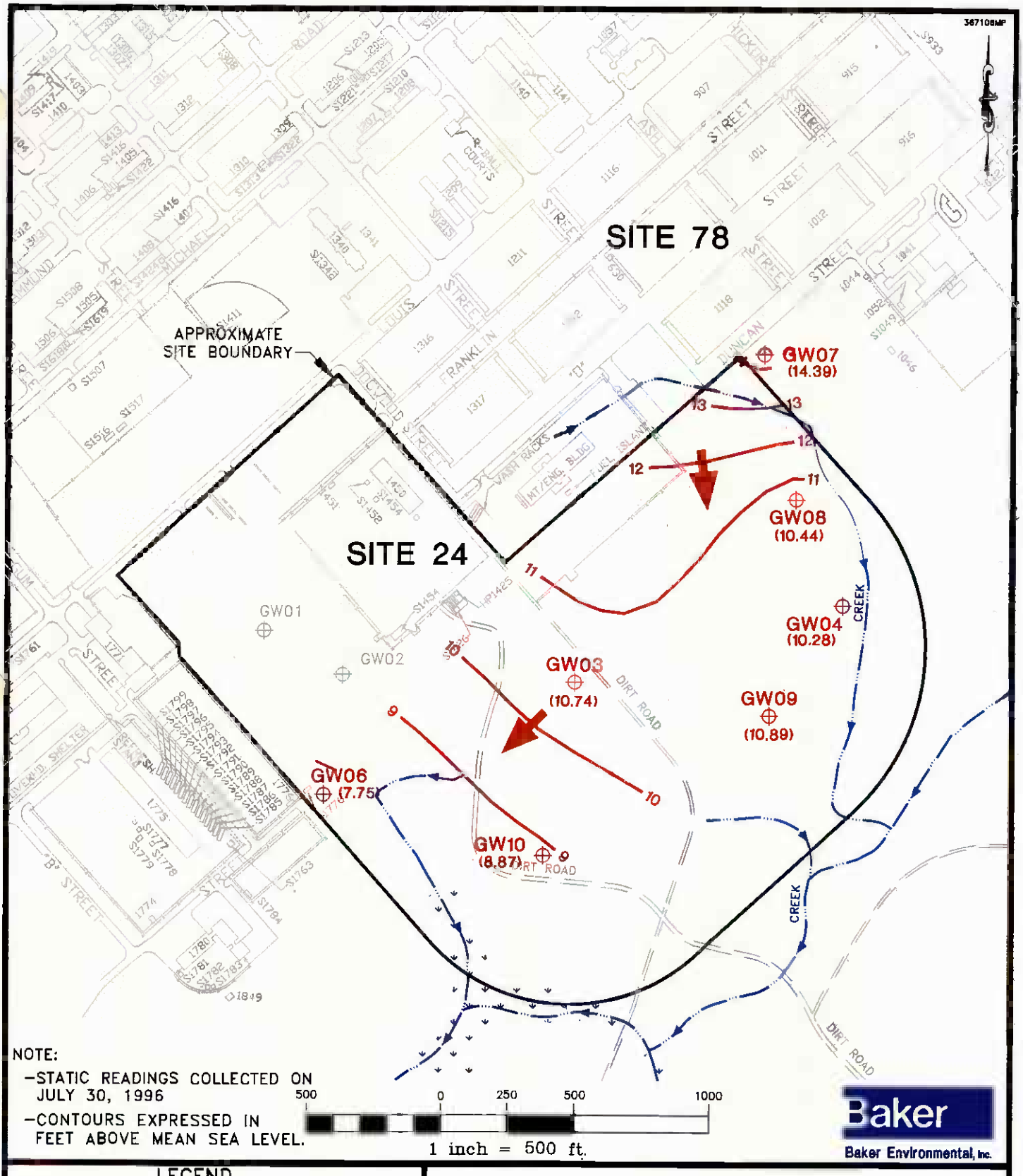
SITE 24

NOTE:
WELLS SHOWN IN GRAY NOT INCLUDED IN THE MONITORING PROGRAM.

500 0 250 500
1 inch = 500 ft.

Baker
Baker Environmental, Inc.

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



NOTE:
- STATIC READINGS COLLECTED ON JULY 30, 1996
- CONTOURS EXPRESSED IN FEET ABOVE MEAN SEA LEVEL.

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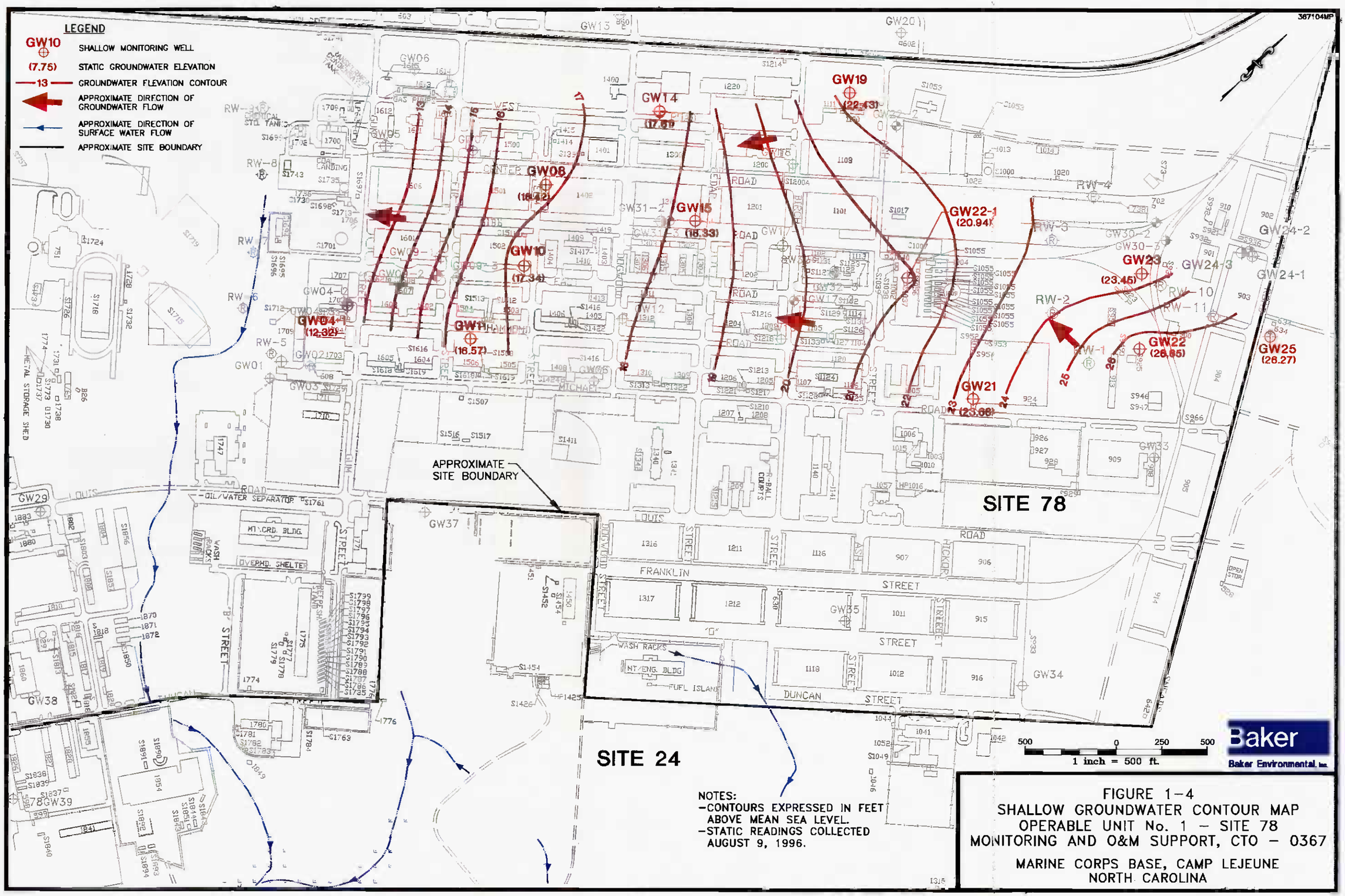
LEGEND

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

SOURCE: LANTDIV, FEB. 1992

FIGURE 1-3
SHALLOW GROUNDWATER ELEVATION 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
(7.75)
STATIC GROUNDWATER ELEVATION
13
GROUNDWATER FLEVATION CONTOUR
APPROXIMATE DIRFCTION OF GROUNDWATER FLOW
APPROXIMATE DIRECTION OF SURFACE WATER FLOW
APPROXIMATE SITE BOUNDARY
APPROXIMATE SITE BOUNDARY
SITE 78
SITE 24
GW19 (22.13)
GW14 (17.67)
GW08 (16.42)
GW15 (18.33)
GW10 (17.34)
GW11 (16.57)
GW04-1 (12.32)
GW22-1 (20.94)
GW23 (23.45)
GW22 (26.85)
GW21 (23.66)
GW25 (26.27)
GW24-2
GW24-3
GW24-1
GW01
GW02
GW03
GW04-2
GW05
GW06
GW07
GW09-1
GW09-2
GW09-3
GW12
GW13
GW17
GW20
GW29
GW30-1
GW30-2
GW31-1
GW31-2
GW32
GW33
GW34
GW35
GW37
GW38
GW39
RW-1
RW-2
RW-3
RW-4
RW-5
RW-6
RW-7
RW-8
RW-10
RW-11
NOTES:
-CONTOURS EXPRESSED IN FEET ABOVE MEAN SEA LEVEL.
-STATIC READINGS COLLECTED AUGUST 9, 1996.
500 0 250 500
1 inch = 500 ft.
Baker
Baker Environmental, Inc.
FIGURE 1-4
SHALLOW GROUNDWATER CONTOUR MAP
OPERABLE UNIT No. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO - 0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

LEGEND
- SUPPLY WELL
- FREE PRODUST UST SITE
- CONTAMINATED UST SITE
- UST SITE SUBMITTED FOR CLOSURE
- SOLID WASTE MANAGEMENT UNIT
- INSTALLATION RESTORATION PROGRAM SITE

HP-603

SITE 94

1700

1743

1735

1736

1601

1601

1502

1502

1401

1607

1753

1619

1408

1310

1115

SITE 21

738

FORMER FUEL FARM

1203

1205

1106

1106

CURRENT FUEL FARM

900

903

S-947

1804/S-1856-1

1880-S

1815

1775-1,-3

1780

1854-1,-2,-3

1450-1,-2,-5,-6,-7

1450-3,-4

SITE 24

SITE 78

HP-642

500 0 250 500
1 inch = 500 ft.

Baker
Baker Environmental, Inc.

FIGURE 1-5
IR, SWMU, & UST LOCATION MAP
OPERABLE UNIT No. 1-SITE 78
MONITORING AND O&M SUPPORT, CTO-0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

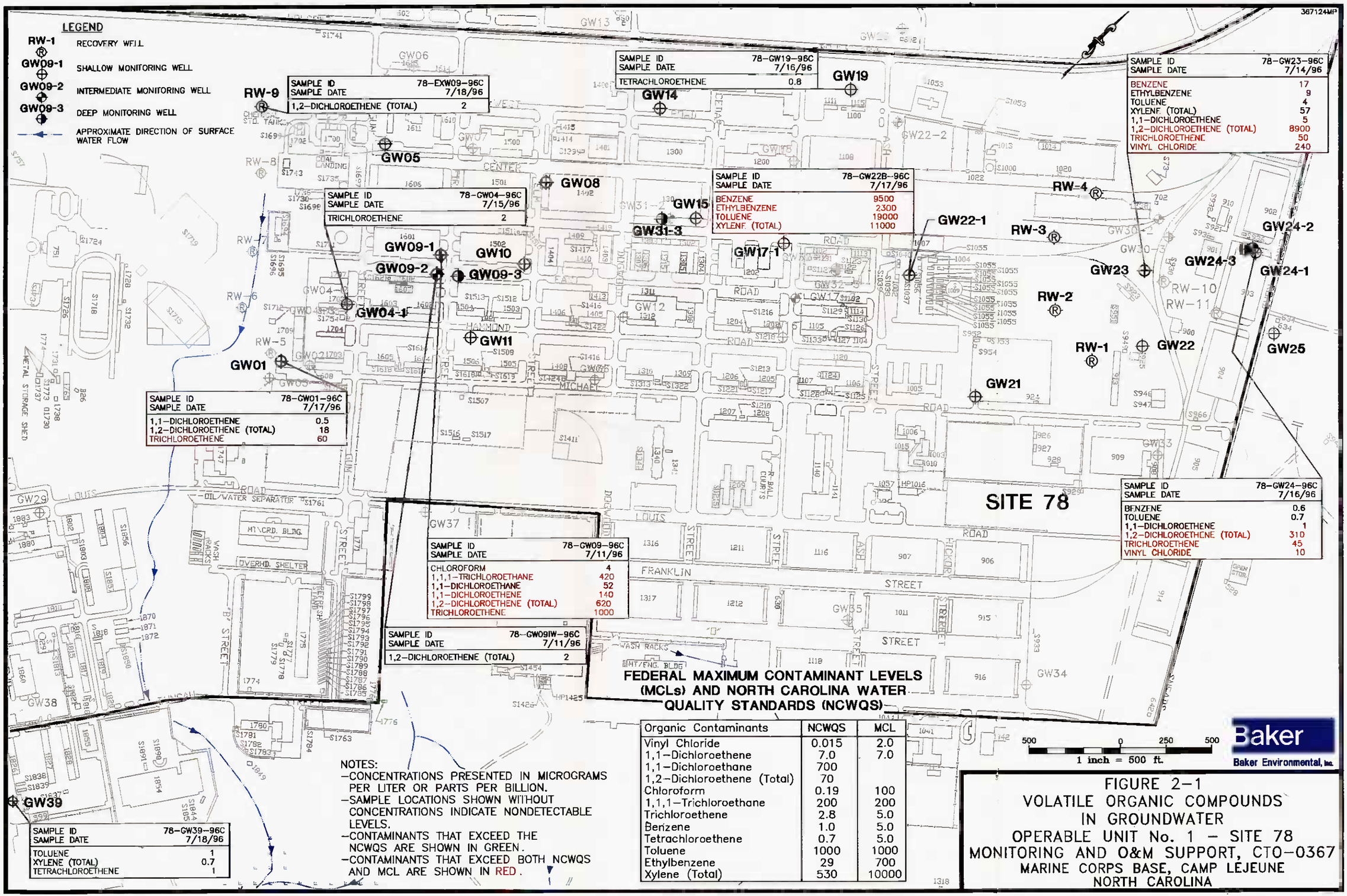
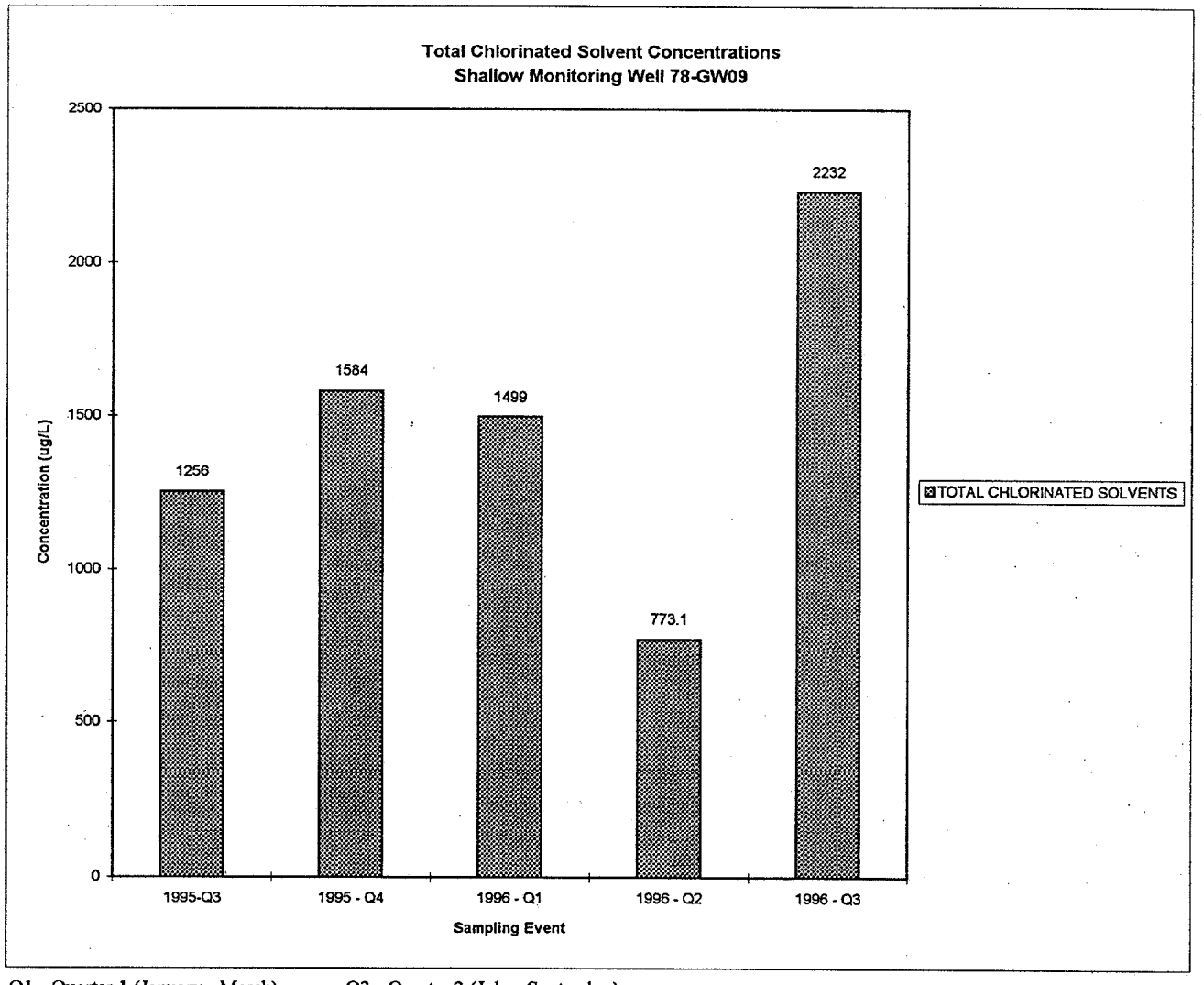

LEGEND
RW-1 RECOVERY WELL
GW09-1 SHALLOW MONITORING WELL
GW09-2 INTERMEDIATE MONITORING WELL
GW09-3 DEEP MONITORING WELL
APPROXIMATE DIRECTION OF SURFACE WATER FLOW
SAMPLE ID 78-EXW09-96C
SAMPLE DATE 7/18/96
1,2-DICHLOROETHENE (TOTAL) 2
SAMPLE ID 78-GW04-96C
SAMPLE DATE 7/15/96
TRICHLOROETHENE 2
SAMPLE ID 78-GW01-96C
SAMPLE DATE 7/17/96
1,1-DICHLOROETHENE 0.5
1,2-DICHLOROETHENE (TOTAL) 18
TRICHLOROETHENE 60
SAMPLE ID 78-GW19-96C
SAMPLE DATE 7/16/96
TETRACHLOROETHENE 0.8
SAMPLE ID 78-GW22B-96C
SAMPLE DATE 7/17/96
BENZENE 9500
ETHYLBENZENE 2300
TOLUENE 19000
XYLENE (TOTAL) 11000
SAMPLE ID 78-GW23-96C
SAMPLE DATE 7/14/96
BENZENE 17
ETHYLBENZENE 9
TOLUENE 4
XYLENE (TOTAL) 57
1,1-DICHLOROETHENE 5
1,2-DICHLOROETHENE (TOTAL) 8900
TRICHLOROETHENE 50
VINYL CHLORIDE 240
SAMPLE ID 78-GW09-96C
SAMPLE DATE 7/11/96
CHLOROFORM 4
1,1,1-TRICHLOROETHANE 420
1,1-DICHLOROETHANE 52
1,1-DICHLOROETHENE 140
1,2-DICHLOROETHENE (TOTAL) 620
TRICHLOROETHENE 1000
SAMPLE ID 78-GW09IW-96C
SAMPLE DATE 7/11/96
1,2-DICHLOROETHENE (TOTAL) 2
SAMPLE ID 78-GW24-96C
SAMPLE DATE 7/16/96
BENZENE 0.6
TOLUENE 0.7
1,1-DICHLOROETHENE 1
1,2-DICHLOROETHENE (TOTAL) 310
TRICHLOROETHENE 45
VINYL CHLORIDE 10
SAMPLE ID 78-GW39-96C
SAMPLE DATE 7/18/96
TOLUENE 1
XYLENE (TOTAL) 0.7
TETRACHLOROETHENE 1
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.
FEDERAL MAXIMUM CONTAMINANT LEVELS (MCLs) AND NORTH CAROLINA WATER QUALITY STANDARDS (NCWQS)
Organic Contaminants | NCWQS | MCL
Vinyl Chloride | 0.015 | 2.0
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
Benzene | 1.0 | 5.0
Tetrachloroethene | 0.7 | 5.0
Toluene | 1000 | 1000
Ethylbenzene | 29 | 700
Xylene (Total) | 530 | 10000
SITE 78
500 0 250 500
1 inch = 500 ft.
Baker
Baker Environmental, Inc.
FIGURE 2-1
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 2-2
TOTAL CHLORINATED SOLVENTS
IN GROUNDWATER
OPERABLE UNIT No. 1 – SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

FIGURE 2-3

TOTAL CHLORINATED SOLVENT RESULTS FROM 78-GW09
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-367
MCB, CAMP LEJEUNE, NORTH CAROLINA

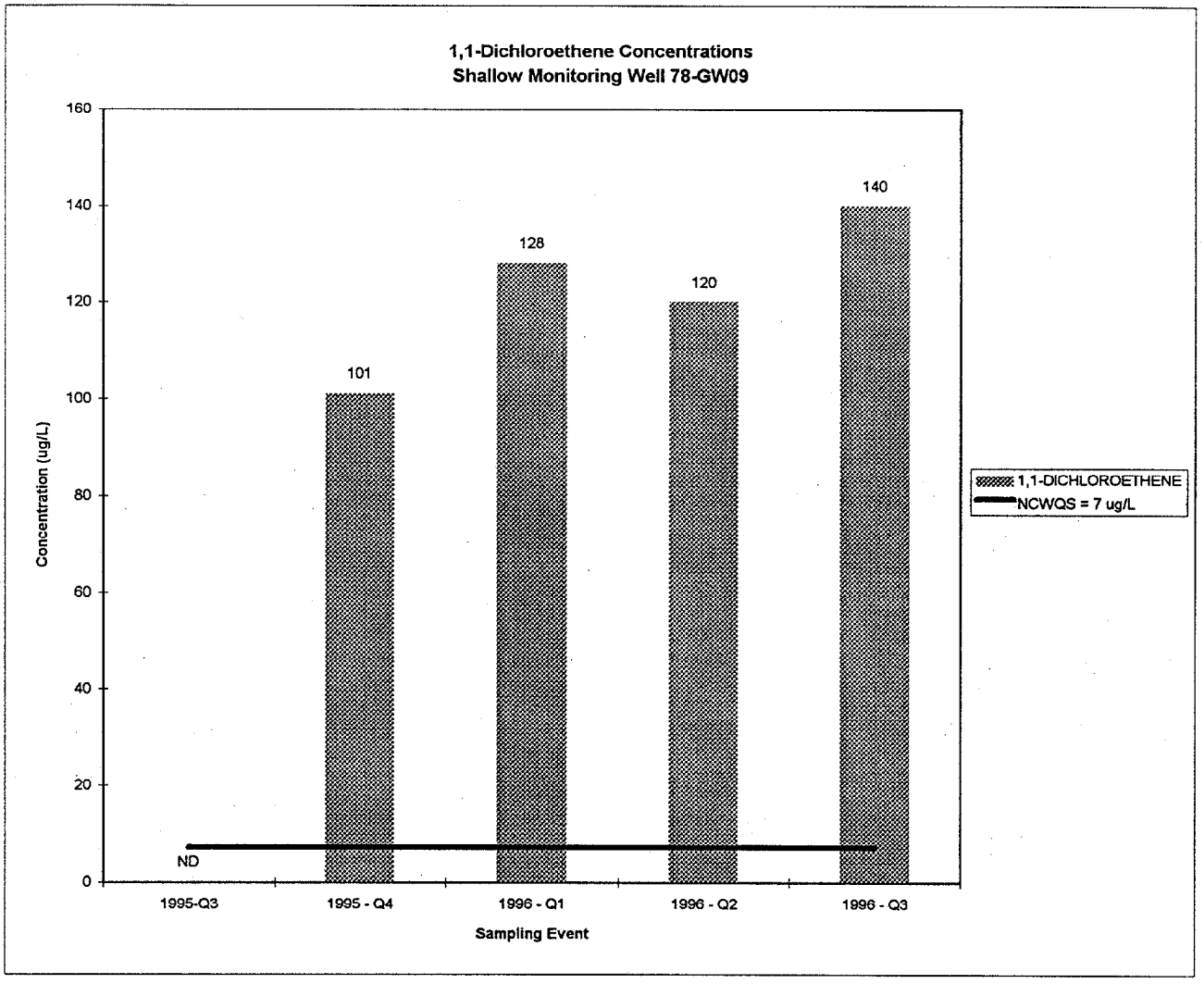


Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

Contaminants	Mean Total (ug/L)	Median Total (ug/L)	Detection Frequency	Detections Above Standards
TOTAL CHLORINATED SOLVENTS	1469	1499	N/A	N/A

FIGURE 2-4

1,1-DICHLOROETHENE RESULTS FROM 78-GW09
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-367
MCB, CAMP LEJEUNE, NORTH CAROLINA



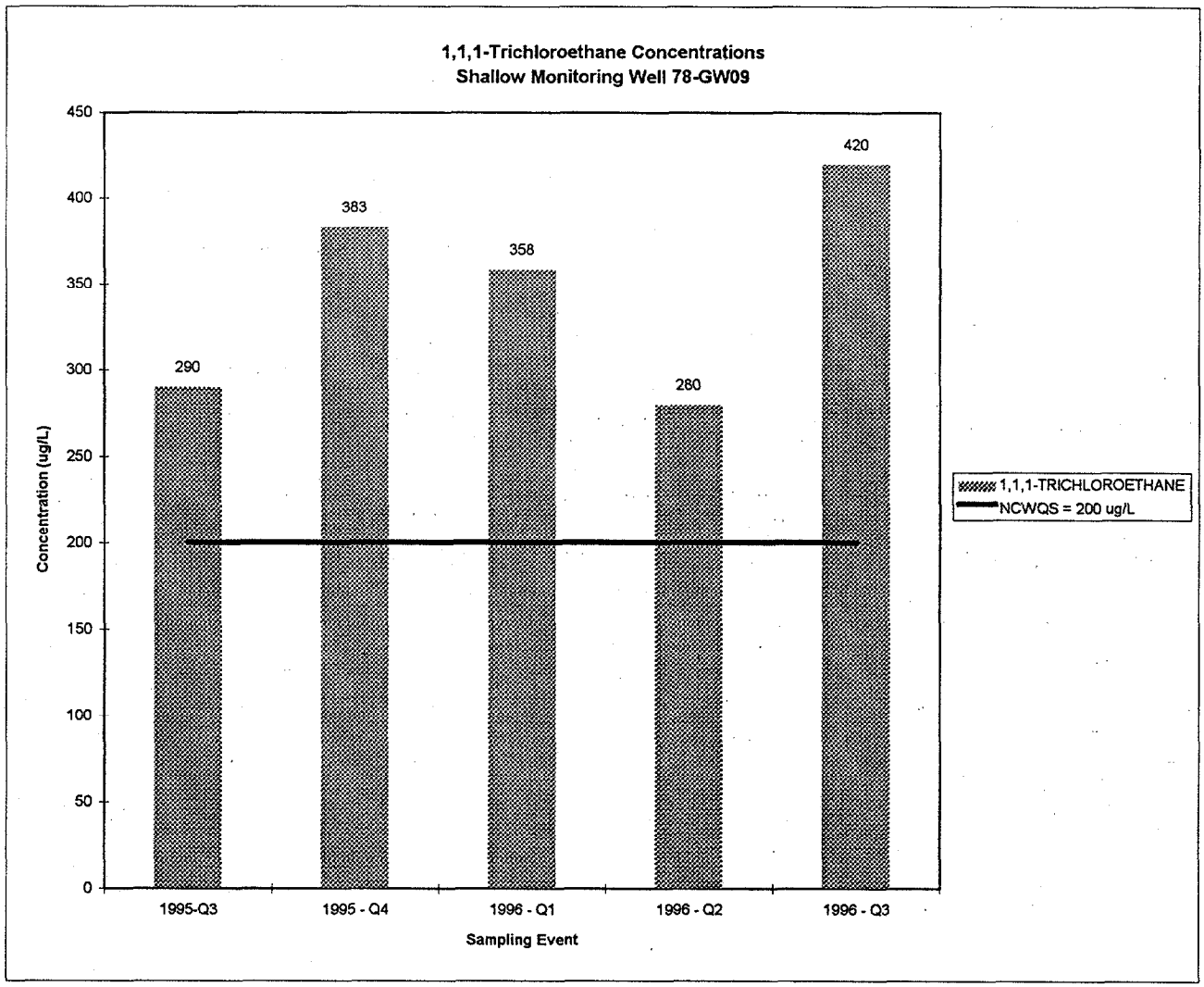
Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

Notes:
Federal Maximum Contaminant Level (MCL) = 7 micrograms per liter (ug/L)
North Carolina Water Quality Standard (NCWQS) = 7 micrograms per liter (ug/L)
ND = Not Detected

Contaminant	Mean Detection (ug/L)	Median Detection (ug/L)	Detection Frequency	Detections Above Standards
1,1-DICHLOROETHENE	98	120	4/5	4/5

FIGURE 2-5

1,1,1-TRICHLOROETHANE RESULTS FROM 78-GW09
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-367
MCB, CAMP LEJEUNE, NORTH CAROLINA



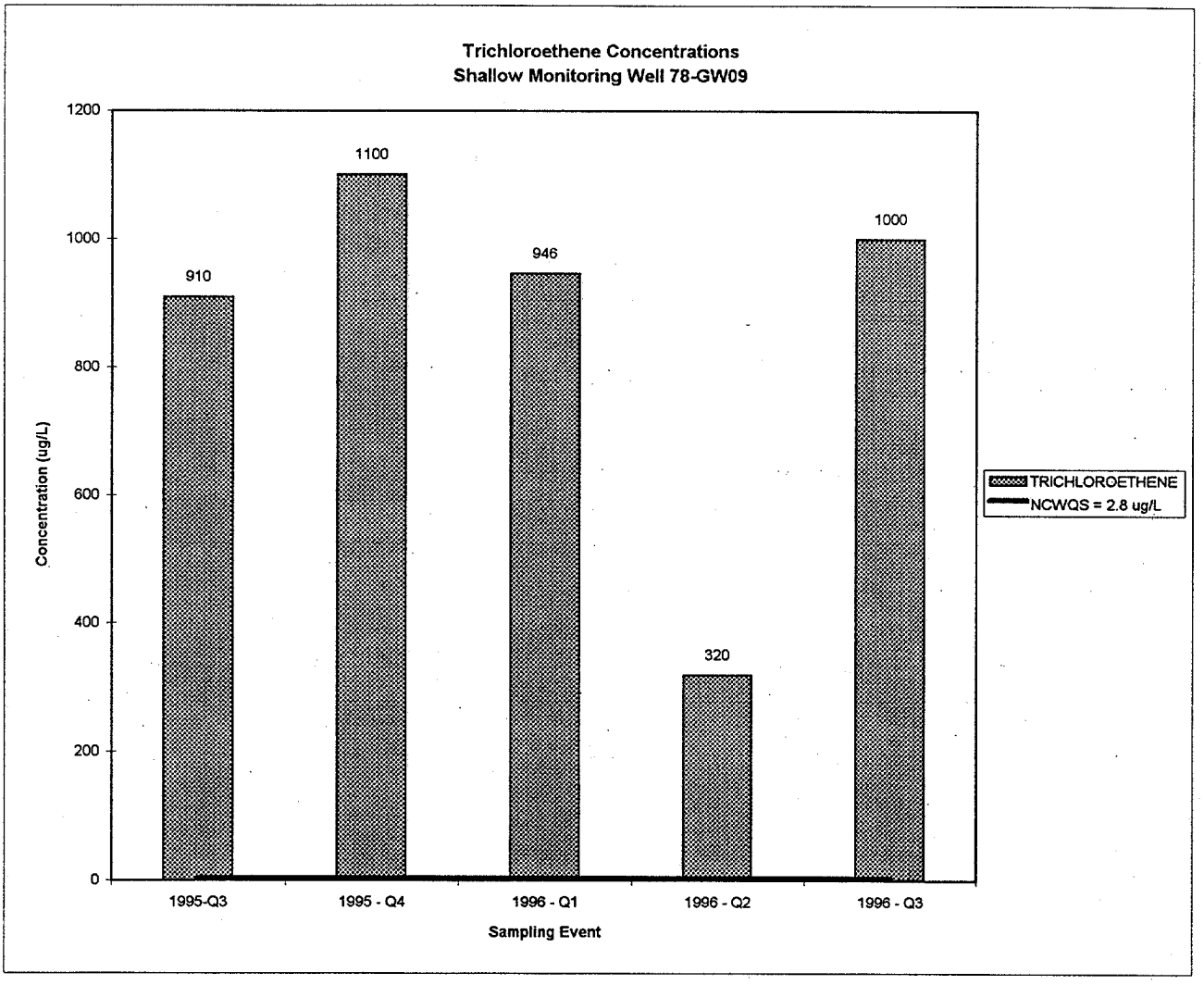
Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

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 (ug/L)	Median Detection (ug/L)	Detection Frequency	Detections Above Standards
1,1,1-TRICHLOROETHANE	346	358	5/5	5/5

FIGURE 2-6

TRICHLOROETHENE RESULTS FROM 78-GW09
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-367
MCB, CAMP LEJEUNE, NORTH CAROLINA



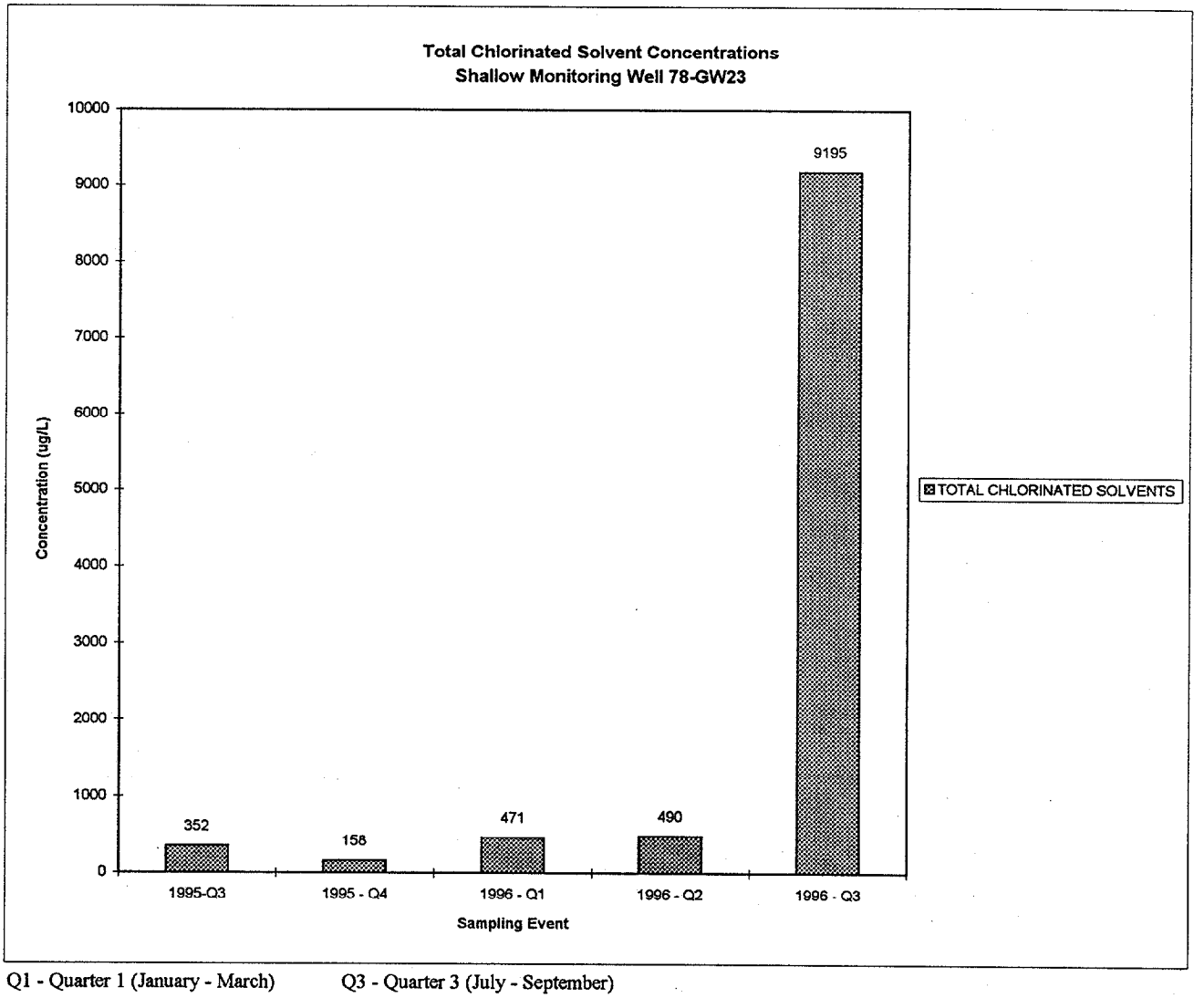
Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

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)

Contaminant	Mean Detection (ug/L)	Median Detection (ug/L)	Detection Frequency	Detections Above Standards
TRICHLOROETHENE	855	946	5/5	5/5

FIGURE 2-7

TOTAL CHLORINATED SOLVENT RESULTS FROM 78-GW23
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-367
MCB, CAMP LEJEUNE, NORTH CAROLINA

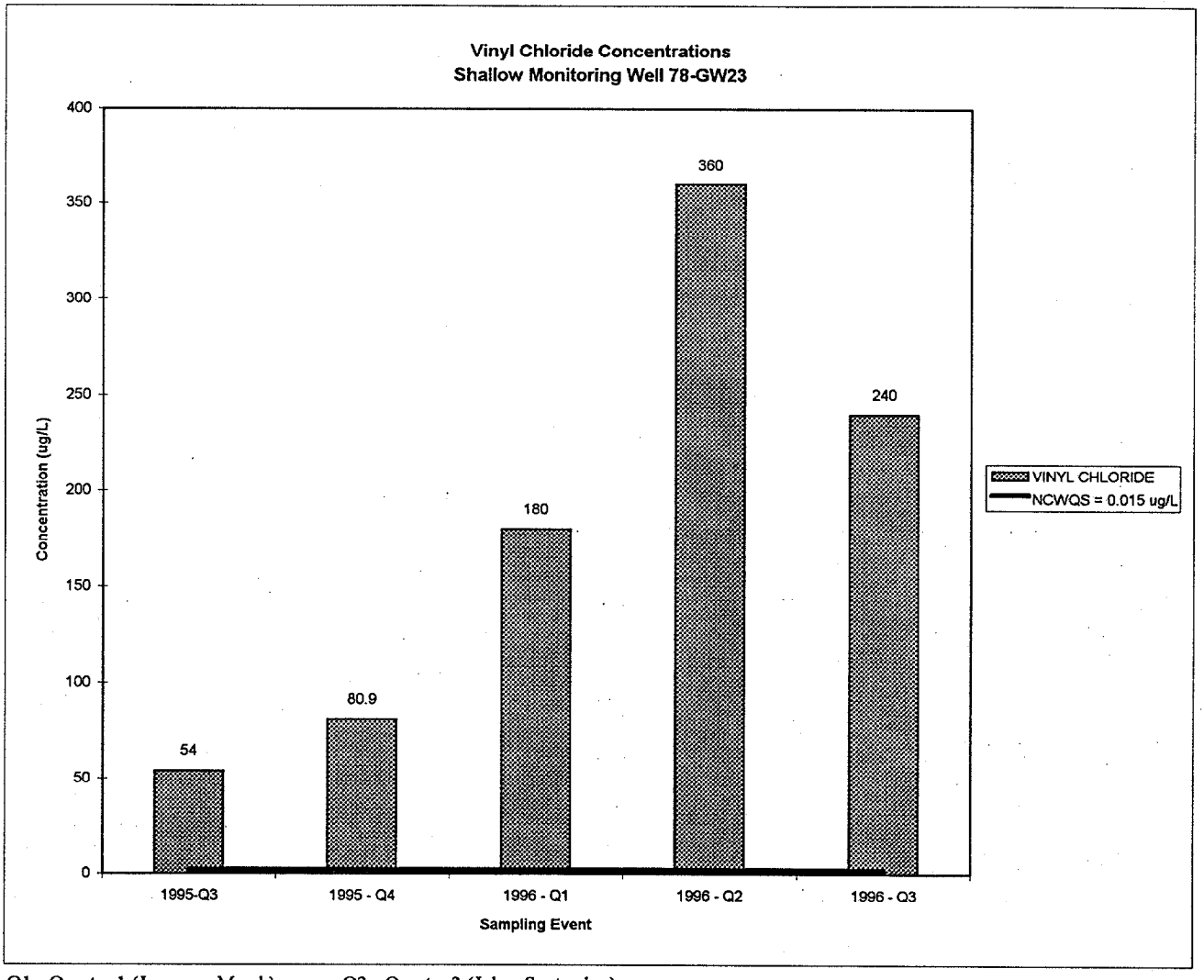


Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

Contaminants	Mean Total (ug/L)	Median Total (ug/L)	Detection Frequency	Detections Above Standards
TOTAL CHLORINATED SOLVENTS	2133	471	5/5	N/A

FIGURE 2-8

VINYL CHLORIDE RESULTS FROM 78-GW23
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-367
MCB, CAMP LEJEUNE, NORTH CAROLINA



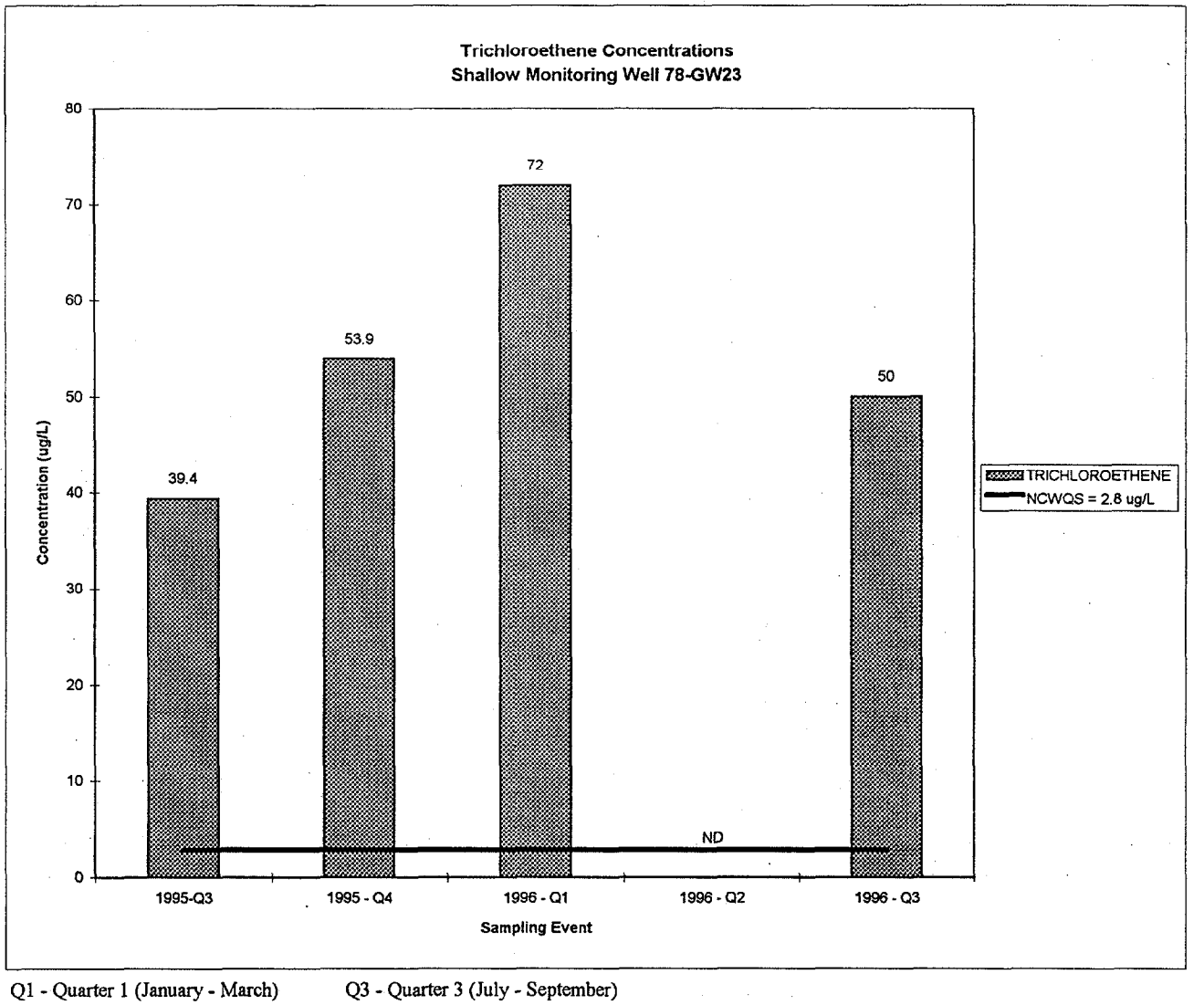
Q1 - Quarter 1 (January - March)
Q2 - Quarter 2 (April - June)
Q3 - Quarter 3 (July - September)
Q4 - Quarter 4 (October - December)

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 (ug/L)	Median Detection (ug/L)	Detection Frequency	Detections Above Standards
VINYL CHLORIDE	183	180	5/5	5/5

FIGURE 2-9

TRICHLOROETHENE RESULTS FROM 78-GW23
OPERABLE UNIT NO. 1 - SITE 78
MONITORING AND O&M SUPPORT, CTO-367
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)

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 (ug/L)	Median Detection (ug/L)	Detection Frequency	Detections Above Standards
TRICHLOROETHENE	43	50	4/5	4/5

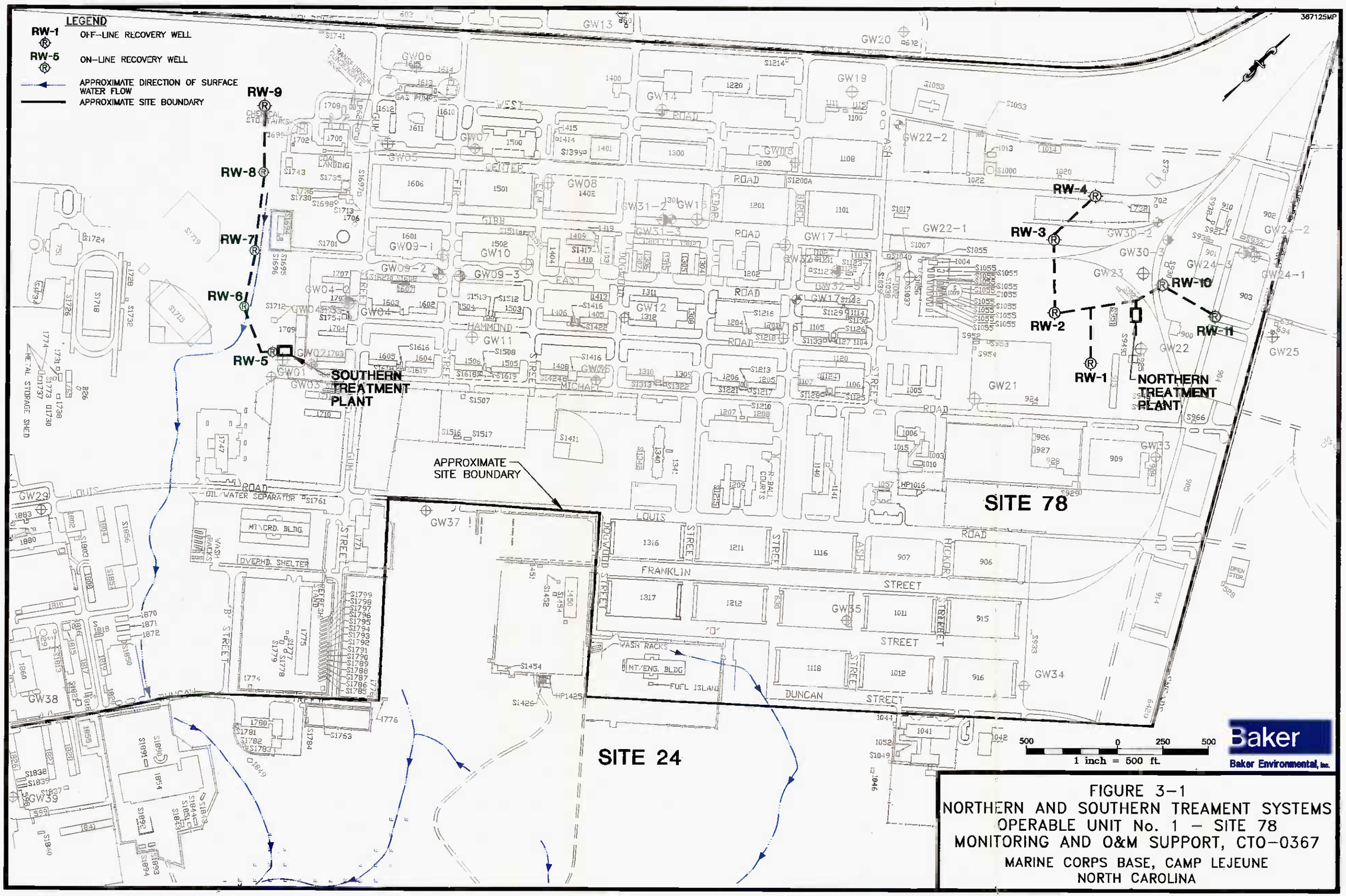


FIGURE 3-1
NORTHERN AND SOUTHERN TREAMENT SYSTEMS
OPERABLE UNIT No. 1 – SITE 78
MONITORING AND O&M SUPPORT, CTO-0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

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ATTACHMENTS

ATTACHMENT A
WELL DEVELOPMENT RECORDS

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 24-GW08

DATE: 7-9-96 SITE: 24

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	0945
TIME FINISH	1015
INITIAL WATER LEVEL (FT)	18.32'
TOTAL WELL DEPTH (TD)	21.41'
WELL DIAMETER (INCHES)	4"
CALCULATED WELL VOLUME	≈ 2 gal. (1)
BOREHOLE DIAMETER (INCHES)	—
BOREHOLE VOLUME	—
AMOUNT OF WATER ADDED DURING DRILLING	NA
DEVELOPMENT METHOD	Check valve with Surge Block
PUMP TYPE	Waterra™
TOTAL TIME (A)	30 min.
AVERAGE FLOW (GPM)(B)	.3 gal./min.
TOTAL ESTIMATED WITHDRAWAL AxB=	9.0 gallons
(HNU)/OVA READING	.1ppm BG=.1ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
0945	0	5.86	10.6	223	22.6	Brownish / Tan
0951	2.0	5.86	8.9	188	19.1	Clear / Tan
0953	3.0	5.81	8.3	180	19.2	Clear / Tan
0957	4.0	5.85	8.8	178	19.4	Clear / Tan
1000	5.0	5.90	8.6	175	19.3	Clear / Tan
1005	6.0	5.91	7.3	177	19.4	Clear / Tan
1008	7.0	5.92	7.3	179	19.0	Clear / Tan
1011	8.0	5.94	7.1	181	19.0	Clear / Tan
1015	9.0	5.94	6.7	185	19.5	Clearer / Slightly Tan

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 24-GW09

DATE: 7-10-96 SITE: 24

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	1126
TIME FINISH	1233
INITIAL WATER LEVEL (FT)	8.03'
TOTAL WELL DEPTH (TD)	14.47'
WELL DIAMETER (INCHES)	4"
CALCULATED WELL VOLUME	4.25 gal. (1)
BOREHOLE DIAMETER (INCHES)	–
BOREHOLE VOLUME	–
AMOUNT OF WATER ADDED DURING DRILLING	NA
DEVELOPMENT METHOD	Check valve with Surge Block
PUMP TYPE	Waterra™
TOTAL TIME (A)	53 min.
AVERAGE FLOW (GPM)(B)	.07 gal./min.
TOTAL ESTIMATED WITHDRAWAL AxB=	12.75 gallons
(HNU)/OVA READING	1.8 ppm. BG = 1.8 ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1138	4.25	4.35	15.2	105	20.5	Translucent/Tan
1155	6.37	4.46	15.5	107	19.5	Translucent/Tan (less turbid)
1208	8.50	4.43	15.4	109	20.6	Translucent/Tan slightly less turb.
1220	10.62	4.37	14.0	107	19.6	Translucent/Tan slightly less turb.
1233	12.75	4.38	–	112	19.7	Translucent/Tan less turbid

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 24-GW10

DATE: 7-10-96 SITE: 24

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START: 1430

TIME FINISH: 1455

INITIAL WATER LEVEL (FT): 13.52'

TOTAL WELL DEPTH (TD): 20.22'

WELL DIAMETER (INCHES): 4"

CALCULATED WELL VOLUME: 4.4 gal. (1)

BOREHOLE DIAMETER (INCHES): -

BOREHOLE VOLUME: -

AMOUNT OF WATER ADDED DURING DRILLING: NA

DEVELOPMENT METHOD: Check valve with Surge Block

PUMP TYPE: Waterra™

TOTAL TIME (A): 25 min.

AVERAGE FLOW (GPM)(B): .52 gal./min.

TOTAL ESTIMATED WITHDRAWAL AxB=: 13.2 gallons

(HNU)/OVA READING: 1.6 ppm BG=1.6 ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1430	2.20	4.53	-	65.4	17.9	Translucent / Grayish-Tan Rooted material
1435	4.40	4.64	-	61.4	17.6	Translucent / Grayish-Tan Rooted material
1440	6.60	4.70	-	60.7	18.2	Translucent / Tanish-Brown
1445	8.80	4.59	-	62.7	17.5	Translucent / Tanish-Brown
1450	11.0	4.58	-	62.4	17.5	Translucent / Tanish-Brown
1455	13.20	4.65	-	63.5	17.6	Translucent / Tan (very light)

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW01

DATE: 7-14-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START: 0815

TIME FINISH: 0832

INITIAL WATER LEVEL (FT): 22.5'

TOTAL WELL DEPTH (TD): 27.5'

WELL DIAMETER (INCHES): 2"

CALCULATED WELL VOLUME: 1.0 gal. (1)

BOREHOLE DIAMETER (INCHES): —

BOREHOLE VOLUME: —

AMOUNT OF WATER ADDED DURING DRILLING: NA

DEVELOPMENT METHOD: Check valve with Surge Block

PUMP TYPE: Waterra™

TOTAL TIME (A): 17 min.

AVERAGE FLOW (GPM)(B): .23 gal./min.

TOTAL ESTIMATED WITHDRAWAL AxB=: 4.0 gallons

HNU/OVA READING: 0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
0822	1.0	4.92	18.4	400	19.6	Dark Red/ metal flecks
0828	2.0	5.02	17.4	408	17.5	Light Brown
0831	3.0	5.27	17.4	420	19.1	Light Brown
0832	4.0	5.24	14.9	417	19.1	Light Brown

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker

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FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-HPGW04-1

DATE: 7-13-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	0704
TIME FINISH	0717
INITIAL WATER LEVEL (FT)	22.0'
TOTAL WELL DEPTH (TD)	25.0'
WELL DIAMETER (INCHES)	2"
CALCULATED WELL VOLUME	1.0 gal. (1)
BOREHOLE DIAMETER (INCHES)	—
BOREHOLE VOLUME	—
AMOUNT OF WATER ADDED DURING DRILLING	NA
DEVELOPMENT METHOD	Check valve with Surge Block
PUMP TYPE	Waterra™
TOTAL TIME (A)	13 min.
AVERAGE FLOW (GPM)(B)	.23 gal./min.
TOTAL ESTIMATED WITHDRAWAL AxB=	3.0 gallons
(HNU)/OVA READING	0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
0708	1.0	6.16	23.1	256	23.9	Brown/ very Turbid
0713	2.0	6.38	22.9	324	23.6	Brown/ very Turbid
0717	3.0	6.51	27.8	379	23.5	Brown/ very Turbid

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker

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FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW05

DATE: 7-11-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START: 0955

TIME FINISH: 1004

INITIAL WATER LEVEL (FT): 10.45'

TOTAL WELL DEPTH (TD): 25.0'

WELL DIAMETER (INCHES): 2"

CALCULATED WELL VOLUME: 2.5 gal. (1)

BOREHOLE DIAMETER (INCHES): —

BOREHOLE VOLUME: —

AMOUNT OF WATER ADDED DURING DRILLING: NA

DEVELOPMENT METHOD: Check valve with Surge Block

PUMP TYPE: Waterra™

TOTAL TIME (A): 9 min.

AVERAGE FLOW (GPM)(B): 1.2 gal./min.

TOTAL ESTIMATED WITHDRAWAL AxB=: 7.5 gallons

(HNU)/OVA READING: 0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
0958	2.5	5.68	—	495	21.8	white/milky Some solids
1000	5.0	5.56	—	486	21.5	Clear to slightly milky
1004	7.5	5.60	—	495	21.5	clear

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-HPGW08

DATE: 7-11-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	DEVELOPMENT DATA						
1038	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
TIME FINISH 1044	1040	2.0	5.39	20.8	168	21.4	Brown/ Very Turbid
INITIAL WATER LEVEL (FT) 14.21'	1042	4.0	5.37	21.0	162	21.2	Brown/ Very Turbid
TOTAL WELL DEPTH (TD) 25.0'	1044	6.0	5.44	21.2	165	21.2	Brown/ Very Turbid
WELL DIAMETER (INCHES) 2"							
CALCULATED WELL VOLUME 2.0 gal. (1)							
BOREHOLE DIAMETER (INCHES) —							
BOREHOLE VOLUME —							
AMOUNT OF WATER ADDED DURING DRILLING NA							
DEVELOPMENT METHOD Check valve with Surge Block							
PUMP TYPE Waterra™							
TOTAL TIME (A) 6 min.							
AVERAGE FLOW (GPM)(B) 1.0 gal./min.							
TOTAL ESTIMATED WITHDRAWAL AxB= 6.0 gallons							
(HNU)/OVA READING 0ppm BG=0ppm							

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker

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FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW09-1

DATE: 7-10-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	1715
TIME FINISH	1745
INITIAL WATER LEVEL (FT)	12.15
TOTAL WELL DEPTH (TD)	25.0'
WELL DIAMETER (INCHES)	2"
CALCULATED WELL VOLUME	2.2 gal. (1)
BOREHOLE DIAMETER (INCHES)	—
BOREHOLE VOLUME	—
AMOUNT OF WATER ADDED DURING DRILLING	NA
DEVELOPMENT METHOD	Check valve with Surge Block
PUMP TYPE	Waterra™
TOTAL TIME (A)	30 min.
AVERAGE FLOW (GPM)(B)	.36 gal./min.
TOTAL ESTIMATED WITHDRAWAL AxB=	11.0 gallons
(HNU/OVA READING	0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1723	2.20	5.56	-	350	21.4	Light Brown/ >200 Turbidity
1729	4.40	5.69	-	367	21.4	Light Brown/ >200 Turbidity
1733	6.60	5.84	-	376	21.2	Light Brown/ >200 Turbidity
1739	8.80	5.86	-	372	21.1	Light Brown/ >200 Turbidity
1745	11.0	5.85	-	368	21.2	Light Brown/ >200 Turbidity

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

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FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW09-2

DATE: 7-10-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	DEVELOPMENT DATA						
1806	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
TIME FINISH 1848	1820	10.0	7.10	–	501	22.5	Grayish/ Translucent
INITIAL WATER LEVEL (FT) 15.30'	1827	15.0	7.15	–	502	22.0	Grayish/ Translucent
TOTAL WELL DEPTH (TD) 75.0'	1836	20.0	7.17	–	504	22.0	Grayish/ Translucent
WELL DIAMETER (INCHES) 2"	1841	25.0	7.18	–	501	21.8	Grayish/ Translucent
CALCULATED WELL VOLUME 10.0 gal. (1)	1848	30.0	7.18	–	505	22.0	Grayish/ Translucent
BOREHOLE DIAMETER (INCHES) –							
BOREHOLE VOLUME –							
AMOUNT OF WATER ADDED DURING DRILLING NA							
DEVELOPMENT METHOD Check valve with Surge Block							
PUMP TYPE Waterra™							
TOTAL TIME (A) 39 min.							
AVERAGE FLOW (GPM)(B) .76 gal./min.							
TOTAL ESTIMATED WITHDRAWAL AxB= 30.0 gallons							
HNU/OVA READING 0ppm BG=0ppm							

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

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FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW09-3

DATE: 7-10-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START: 0832

TIME FINISH: 1034

INITIAL WATER LEVEL (FT): 14.56'

TOTAL WELL DEPTH (TD): 150.0'

WELL DIAMETER (INCHES): 2"

CALCULATED WELL VOLUME: 23.0 gal. (1)

BOREHOLE DIAMETER (INCHES): —

BOREHOLE VOLUME: —

AMOUNT OF WATER ADDED DURING DRILLING: NA

DEVELOPMENT METHOD: Check valve with Surge Block

PUMP TYPE: Waterra™

TOTAL TIME (A): 2 hr. 2 min.

AVERAGE FLOW (GPM)(B): .47 gal./min.

TOTAL ESTIMATED WITHDRAWAL AxB=: 57.5 gallons

(HNU)/OVA READING: 0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
0840	5.75	10.92	21.7	437	21.8	Clear
0848	11.50	11.01	21.0	455	21.8	Clear
0903	17.25	11.05	20.7	456	21.8	Clear
0911	23.0	11.01	21.2	453	22.1	Clear
0935	28.75	11.09	20.7	534	21.7	Clear
0946	34.50	11.09	20.4	537	21.8	Clear
0957	40.25	11.10	20.0	523	21.5	Clear
1009	46.0	11.09	19.1	502	21.9	Clear
1020	51.75	11.08	18.9	509	22.1	Clear
1034	57.5	11.07	18.9	501	22.3	Clear

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-HPGW10

DATE: 7-11-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	1215
TIME FINISH	1230
INITIAL WATER LEVEL (FT)	13.34'
TOTAL WELL DEPTH (TD)	25.0'
WELL DIAMETER (INCHES)	2"
CALCULATED WELL VOLUME	2.0 gal. (1)
BOREHOLE DIAMETER (INCHES)	—
BOREHOLE VOLUME	—
AMOUNT OF WATER ADDED DURING DRILLING	NA
DEVELOPMENT METHOD	Check valve with Surge Block
PUMP TYPE	Waterra™
TOTAL TIME (A)	15 min.
AVERAGE FLOW (GPM)(B)	.66 gal./min.
TOTAL ESTIMATED WITHDRAWAL AxB=	10.0 gallons
(HNU)/OVA READING	0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1218	2.0	6.12	17.6	226	22.7	Brown/ Very Turbid
1220	4.0	6.10	17.6	220	22.2	Brown/ Very Turbid
1225	6.0	6.17	22.3	217	21.8	Brown/ Very Turbid
1228	8.0	6.18	22.3	217	22.1	Brown/ Very Turbid
1230	10.0	6.18	21.8	211	21.8	Brown/ Very Turbid

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker

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FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-HPGW11

DATE: 7-11-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START: 1305

TIME FINISH: 1327

INITIAL WATER LEVEL (FT): 14.40'

TOTAL WELL DEPTH (TD): 25.0'

WELL DIAMETER (INCHES): 2"

CALCULATED WELL VOLUME: 2.0 gal. (1)

BOREHOLE DIAMETER (INCHES): —

BOREHOLE VOLUME: —

AMOUNT OF WATER ADDED DURING DRILLING: NA

DEVELOPMENT METHOD: Check valve with Surge Block

PUMP TYPE: Waterra™

TOTAL TIME (A): 22 min.

AVERAGE FLOW (GPM)(B): .36 gal./min.

TOTAL ESTIMATED WITHDRAWAL AxB=: 8.0 gallons

(HNU/OVA READING: 0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1312	2.0	4.84	23.0	82.9	23.7	Brown/ very Turbid
1320	4.0	4.87	22.4	81.8	23.1	Brown/ very Turbid Strong odor
-	6.0	4.83	21.3	82.7	22.2	Brown/ very Turbid Strong odor
1327	8.0	4.81	21.6	84.1	21.9	Brown/ very Turbid Strong odor

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-HPGW-14

DATE: 7-11-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	1505
TIME FINISH	1525
INITIAL WATER LEVEL (FT)	11.77'
TOTAL WELL DEPTH (TD)	25.0'
WELL DIAMETER (INCHES)	2"
CALCULATED WELL VOLUME	2.5 gal. (1)
BOREHOLE DIAMETER (INCHES)	—
BOREHOLE VOLUME	—
AMOUNT OF WATER ADDED DURING DRILLING	NA
DEVELOPMENT METHOD	Check valve with Surge Block
PUMP TYPE	Waterra™
TOTAL TIME (A)	20 min.
AVERAGE FLOW (GPM)(B)	.37 gal./min.
TOTAL ESTIMATED WITHDRAWAL AxB=	7.5 gallons
(HNU)/OVA READING	0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1511	2.5	4.33	21.1	235	22.2	Brown/ very Turbid
1516	5.0	4.04	22.0	231	22.1	Brown/ very Turbid
1525	7.5	3.95	—	221	22.3	Lighter Brown/ Translucent

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-HPGW15

DATE: 7-11-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START: 1240

TIME FINISH: 1250

INITIAL WATER LEVEL (FT): 9.73'

TOTAL WELL DEPTH (TD): 24.90'

WELL DIAMETER (INCHES): 2"

CALCULATED WELL VOLUME: 3.0 gal. (1)

BOREHOLE DIAMETER (INCHES): —

BOREHOLE VOLUME: —

AMOUNT OF WATER ADDED DURING DRILLING: NA

DEVELOPMENT METHOD: Check valve with Surge Block

PUMP TYPE: Waterra™

TOTAL TIME (A): 10 min.

AVERAGE FLOW (GPM)(B): .9 gal./min.

TOTAL ESTIMATED WITHDRAWAL AxB=: 9.0 gallons

HNU/OVA READING: 0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1244	3.0	6.26	24.5	252	23.7	Milky/ Very Turbid
1247	6.0	6.22	23.7	236	23.9	Milky/ Very Turbid
1250	9.0	6.13	22.8	215	23.9	Milky/ Very Turbid

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-HPGW17-1

DATE: 7-11-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	DEVELOPMENT DATA						
1420	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
TIME FINISH 1436	1427	2.5	6.77	–	422	22.3	Milky White/ Turbid
INITIAL WATER LEVEL (FT) 11.95'	1432	5.0	6.69	20.2	348	21.4	Milky White/ Turbid
TOTAL WELL DEPTH (TD) 25.0'	1436	7.5	6.64	17.0	327	21.4	Milky White/ Turbid
WELL DIAMETER (INCHES) 2"							
CALCULATED WELL VOLUME 2.5 gal. (1)							
BOREHOLE DIAMETER (INCHES) –							
BOREHOLE VOLUME –							
AMOUNT OF WATER ADDED DURING DRILLING NA							
DEVELOPMENT METHOD Check valve with Surge Block							
PUMP TYPE Waterra™							
TOTAL TIME (A) 16 min.							
AVERAGE FLOW (GPM)(B) .46 gal./min.							
TOTAL ESTIMATED WITHDRAWAL AxB= 7.5 gallons							
(HNU)/OVA READING 0ppm BG=0ppm							

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-HPGW19

DATE: 7-11-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	1145
TIME FINISH	1158
INITIAL WATER LEVEL (FT)	10.42'
TOTAL WELL DEPTH (TD)	25.0'
WELL DIAMETER (INCHES)	2"
CALCULATED WELL VOLUME	2.5 gal. (1)
BOREHOLE DIAMETER (INCHES)	—
BOREHOLE VOLUME	—
AMOUNT OF WATER ADDED DURING DRILLING	NA
DEVELOPMENT METHOD	Check valve with Surge Block
PUMP TYPE	Waterra™
TOTAL TIME (A)	13 min.
AVERAGE FLOW (GPM)(B)	.57 gal./min.
TOTAL ESTIMATED WITHDRAWAL AxB=	7.5 gallons
HNU/OVA READING	0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1149	2.5	4.35	17.5	275	18.6	Brown/Rust Very Turbid
1152	5.0	4.41	15.4	269	18.4	Brown/Rust Very Turbid
1158	7.5	4.37	—	258	19.4	Brown/Rust some clearing

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-HPGW-21

DATE: 7-13-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START: 0945

TIME FINISH: 1000

INITIAL WATER LEVEL (FT): 10.0'

TOTAL WELL DEPTH (TD): 25.0'

WELL DIAMETER (INCHES): 2"

CALCULATED WELL VOLUME: 2.5 gal. (1)

BOREHOLE DIAMETER (INCHES): –

BOREHOLE VOLUME: –

AMOUNT OF WATER ADDED DURING DRILLING: NA

DEVELOPMENT METHOD: Check valve with Surge Block

PUMP TYPE: Waterra™

TOTAL TIME (A): 15 min

AVERAGE FLOW (GPM)(B): .5 gal./min.

TOTAL ESTIMATED WITHDRAWAL AxB=: 7.5 gallons

HNU/OVA READING: 0 ppm BG=0 ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
0950	2.5	4.91	22.6	250	22.6	Slightly Brown/ Translucent
0955	5.0	4.64	21.4	249	22.5	Brown, Rust/ Turbid
1000	7.5	1.90	21.2	245	22.4	Brown, Rust/ Turbid

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW22

DATE: 7-13-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START: 1745

TIME FINISH: 1810

INITIAL WATER LEVEL (FT): 5.75'

TOTAL WELL DEPTH (TD): 27.5'

WELL DIAMETER (INCHES): 2"

CALCULATED WELL VOLUME: 3.3 gal. (1)

BOREHOLE DIAMETER (INCHES): –

BOREHOLE VOLUME: –

AMOUNT OF WATER ADDED DURING DRILLING: NA

DEVELOPMENT METHOD: Check valve with Surge Block

PUMP TYPE: Waterra™

TOTAL TIME (A): 25 min.

AVERAGE FLOW (GPM)(B): .66 gal./min.

TOTAL ESTIMATED WITHDRAWAL AxB=: 16.5 gallons

HNU/OVA READING: 0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1750	3.3	6.25	26.1	401.6	21.2	Gray, Milky/ very Turbid
1755	6.6	6.24	24.6	438.7	20.8	Gray, Milky/ very Turbid
1800	9.9	6.30	23.0	423.4	21.1	Gray, Milky/ very Turbid
1805	13.2	6.39	23.7	321.3	20.9	Gray, Milky/ very Turbid
1810	16.5	6.39	25.1	313.8	20.9	Gray, Milky/ very Turbid

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW22-1

DATE: 7-13-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	1640
TIME FINISH	1705
INITIAL WATER LEVEL (FT)	11.30'
TOTAL WELL DEPTH (TD)	25.0'
WELL DIAMETER (INCHES)	2"
CALCULATED WELL VOLUME	2.3 gal. (1)
BOREHOLE DIAMETER (INCHES)	—
BOREHOLE VOLUME	—
AMOUNT OF WATER ADDED DURING DRILLING	NA
DEVELOPMENT METHOD	Check valve with Surge Block
PUMP TYPE	Waterra™
TOTAL TIME (A)	25 min.
AVERAGE FLOW (GPM)(B)	.46 gal./min.
TOTAL ESTIMATED WITHDRAWAL AxB=	11.5 gallons
(HNU)/OVA READING	0 ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1645	2.3	5.55	26.0	204.1	21.(	Brown, Milky/ Very Turbid
1650	4.6	5.61	21.5	221.3	22.1	Brown, Milky/ Very Turbid
1655	6.9	5.60	23.8	182.3	20.8	Brown, Milky/ Very Turbid
1700	9.2	5.60	24.8	173.4	20.6	Brown, Milky/ Very Turbid
1705	11.5	5.56	24.4	165.8	20.7	Brown, Milky/ Very Turbid

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW23

DATE: 7-13-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	1835
TIME FINISH	1905
INITIAL WATER LEVEL (FT)	10.8'
TOTAL WELL DEPTH (TD)	25.0'
WELL DIAMETER (INCHES)	2"
CALCULATED WELL VOLUME	≈ 2.5 gal. (1)
BOREHOLE DIAMETER (INCHES)	—
BOREHOLE VOLUME	—
AMOUNT OF WATER ADDED DURING DRILLING	NA
DEVELOPMENT METHOD	Check valve with Surge Block
PUMP TYPE	Waterra™
TOTAL TIME (A)	30 min.
AVERAGE FLOW (GPM)(B)	.41 gal./min.
TOTAL ESTIMATED WITHDRAWAL AxB=	12.5 gallons
(HNU)/OVA READING	0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1840	2.5	4.38	25.2	159.1	21.5	Brown/Turbid
1845	5.0	4.36	24.2	170.3	20.8	Brown/Turbid
1852	7.5	4.37	24.0	177.5	20.5	Brown/Turbid
1858	10.0	4.40	23.7	177	20.5	Brown/Turbid
1905	12.5	4.37	22.2	176	20.4	Brown/Turbid

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW24-1

DATE: 7-14-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START: 1010

TIME FINISH: 1055

INITIAL WATER LEVEL (FT): 6.83'

TOTAL WELL DEPTH (TD): 25.0'

WELL DIAMETER (INCHES): 2"

CALCULATED WELL VOLUME: 3.1 gal. (1)

BOREHOLE DIAMETER (INCHES): —

BOREHOLE VOLUME: —

AMOUNT OF WATER ADDED DURING DRILLING: NA

DEVELOPMENT METHOD: Check valve with Surge Block

PUMP TYPE: Waterra™

TOTAL TIME (A): 45 min.

AVERAGE FLOW (GPM)(B): .34 gal./min.

TOTAL ESTIMATED WITHDRAWAL AxB=: 15.5 gallons

(HNU)/OVA READING: 0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1020	3.1	5.10	23.2	215	25.0	Dark Brown/ Very Turbid
1030	6.2	5.17	23.0	230	24.0	Dark Brown/ Very Turbid
1042	9.3	5.08	24.5	220	23.5	Dark Brown/ Very Turbid
1050	12.4	5.06	23.7	200	23.5	Dark Brown/ Very Turbid
1055	15.5	5.03	22.8	220	23.0	Dark Brown/ Very Turbid

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW24-2

DATE: 7-13-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	DEVELOPMENT DATA						
1105	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
TIME FINISH 1155	1120	11.0	7.04	23.8	450	22.0	Brown/Turbid
INITIAL WATER LEVEL (FT) 13.13'	1128	16.5	7.07	22.3	470	22.0	Brown/Turbid
TOTAL WELL DEPTH (TD) 76.5'	1136	22.0	7.11	22.4	470	22.0	Brown/Turbid
WELL DIAMETER (INCHES) 2"	1140	27.5	7.12	22.9	470	22.0	Sandy Brown/Turbid
CALCULATED WELL VOLUME 11.0 gal. (1)	1145	33.0	7.15	23.4	465	22.0	Sandy Brown/Turbid
BOREHOLE DIAMETER (INCHES) —	1150	38.5	7.15	22.5	470	22.0	Sandy Brown/Turbid
BOREHOLE VOLUME —	1155	44.0	7.18	22.9	470	22.0	Sandy Brown/Turbid
AMOUNT OF WATER ADDED DURING DRILLING NA							
DEVELOPMENT METHOD Check valve with Surge Block							
PUMP TYPE Waterra™							
TOTAL TIME (A) 50 min.							
AVERAGE FLOW (GPM)(B) .88 gal./min.							
TOTAL ESTIMATED WITHDRAWAL AxB= 44.0 gallons							
HNU/OVA READING 0 ppm BG=0ppm							

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book. Stopped pump every 1/2 volume to allow well to recharge.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW24-3

DATE: 7-14-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	DEVELOPMENT DATA						
1230	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
TIME FINISH 1340	1245	11.5	7.45	24.3	420	23.0	Light Brown/ little Turbid
INITIAL WATER LEVEL (FT) 13.0'	1258	23.0	7.46	25.4	400	22.5	Clear
TOTAL WELL DEPTH (TD) 148.0'	1220	34.5	7.49	24.8	405	22.5	Brown/ Turbid
WELL DIAMETER (INCHES) 2"	1340	46.0	7.41	24.9	365	22.0	Brown/ Turbid
CALCULATED WELL VOLUME 23.0 gal. (1)							
BOREHOLE DIAMETER (INCHES) —							
BOREHOLE VOLUME —							
AMOUNT OF WATER ADDED DURING DRILLING NA							
DEVELOPMENT METHOD Check valve with Surge Block							
PUMP TYPE Waterra™							
TOTAL TIME (A) 1 hr.							
AVERAGE FLOW (GPM)(B) .76 gal./min.							
TOTAL ESTIMATED WITHDRAWAL AxB= 46.0 gallons							
(HNU)/OVA READING 0 ppm BG=0ppm							

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW25

DATE: 7-13-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START: 1925

TIME FINISH: 1954

INITIAL WATER LEVEL (FT): 9.01'

TOTAL WELL DEPTH (TD): 25.0'

WELL DIAMETER (INCHES): 2"

CALCULATED WELL VOLUME: 2.7 gal. (1)

BOREHOLE DIAMETER (INCHES): —

BOREHOLE VOLUME: —

AMOUNT OF WATER ADDED DURING DRILLING: NA

DEVELOPMENT METHOD: Check valve with Surge Block

PUMP TYPE: Waterra™

TOTAL TIME (A): 29 min.

AVERAGE FLOW (GPM)(B): .46 gal./min.

TOTAL ESTIMATED WITHDRAWAL AxB=: 13.5 gallons

(HNU)/OVA READING: 0 ppm BG=0 ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1930	2.7	5.29	21.8	209.6	19.8	Orangish/ very Brown/ Turbid
1936	5.4	5.46	23.7	212.3	19.7	Orangish/ very Brown/ Turbid
1942	8.1	5.46	23.3	202.6	19.5	Orangish/ very Brown/ Turbid
1948	10.8	5.39	20.4	199.6	20.4	Orangish/ very Brown/ Turbid
1954	13.5	5.36	21.3	194	19.4	Tanish/ Turbid

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW31-3

DATE: 7-11-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	1725
TIME FINISH	1813
INITIAL WATER LEVEL (FT)	11.30'
TOTAL WELL DEPTH (TD)	153.0'
WELL DIAMETER (INCHES)	4"
CALCULATED WELL VOLUME	92.0 gal. (1)
BOREHOLE DIAMETER (INCHES)	—
BOREHOLE VOLUME	—
AMOUNT OF WATER ADDED DURING DRILLING	NA
DEVELOPMENT METHOD	Check valve with Surge Block
PUMP TYPE	Waterra™
TOTAL TIME (A)	48 min.
AVERAGE FLOW (GPM)(B)	2.11 gal./min.
TOTAL ESTIMATED WITHDRAWAL AxB=	95.0 gallons
(HNU)/OVA READING	0ppm BG: 0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
1738	15.0	11.57	15.7	1407	22.6	clear
1743	20.0	11.62	17.7	1530	22.3	clear
1745	25.0	11.65	17.9	1530	22.4	clear
1748	30.0	11.72	14.9	1549	22.2	Slight Gray color
1749	35.0	11.70	14.4	1545	22.1	clear
1751	40.0	11.75	13.9	1552	22.1	clear
1753	45.0	11.69	17.5	1549	21.9	clear
1756	50.0	11.57	15.9	1543	21.8	clear
1759	55.0	11.72	17.0	1552	21.9	clear
1802	60.0	11.71	16.7	1549	21.6	clear
1804	75.0	11.73	16.4	1528	21.5	clear
1806	80.0	11.69	17.6	1511	21.4	clear
1809	85.0	11.69	17.2	1452	21.3	clear
1811	90.0	11.61	18.1	1212	21.2	clear
1813	95.0	11.54	18.1	989	21.0	clear

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Monitoring and O&M Program Support, MCB Camp Lejeune, North Carolina

CTO NO.: 367 WELL NO.: 78-GW39

DATE: 7-14-96 SITE: 78

GEOLOGIST/ENGINEER: KATua/RWKrivan

TIME START	0855
TIME FINISH	0923
INITIAL WATER LEVEL (FT)	15.5'
TOTAL WELL DEPTH (TD)	21.6'
WELL DIAMETER (INCHES)	4"
CALCULATED WELL VOLUME	4.0 gal. (1)
BOREHOLE DIAMETER (INCHES)	—
BOREHOLE VOLUME	—
AMOUNT OF WATER ADDED DURING DRILLING	NA
DEVELOPMENT METHOD	Check valve with Surge Block
PUMP TYPE	Waterra™
TOTAL TIME (A)	28 min.
AVERAGE FLOW (GPM)(B)	.14 gal./min.
TOTAL ESTIMATED WITHDRAWAL AxB=	4.0 gallons
(HNU)/OVA READING	0ppm BG=0ppm

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPECIFIC COND. (µmhos/cm)	TEMP (°C)	COLOR
0902	1.0	4.39	23.1	180	21.0	Tanish/ Translucent
0909	2.0	4.48	21.6	190	20.5	Tanish/ Translucent
0916	3.0	4.49	23.2	188	20.0	Tanish/ Translucent
0923	4.0	4.50	23.2	190	20.0	Tanish/ Translucent

Satisfied criteria for well development. No elevated HNu readings occurred during well development. All readings are shown prior to stabilization of water quality parameters (pH, specific conductance and temperature). All readings are recorded in the field log book.

ATTACHMENT B
CHAIN-OF-CUSTODY DOCUMENTATION

Baker Environmental, Inc.
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108
412-269-6000
412-269-6097 (fax)

CHAIN-OF-CUSTODY RECORD

Lab and BOA #:
Delivery Order #
Project Number: 62470-259/367
Project Name: LTM & O and M
Field Team: Trebilcock/Kirwan
SEND RESULTS TO:

Notes / Sample Number	1996 Date	Time	Sample Location	Matrix Type (1) GB (2)	Matrix Type (1) COM (2)	Analytical Methods: TCL VOAs	List 2 Metals	Oil and Grease	TSS/TDS								General Comments: Sample ID / Remarks
						Type of Container(s) (3)											
						G	P	G	P								
						Number of Container(s)											
Routine	7/10	1620	Site 78	GW		2	1	1	1								78-EXW02-96C
Turn	7/10	1850	Site 24	GW			1	1	1								24-GW08-96C
	7/11	0930	" 78	GW			1	1	1								78-GW31DW-96C
	7/11	1250	" 24	GW			1	1	1								24-GW09-96C
	7/11	1530	" 78	GW			1	1	1								78-GW09IW-96C

General Comments: COC # 04101-96C

Relinquished By: [signature] Date: 7/13 Time: 1100
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Sample Stored at 4 Degrees C: Yes ☐ No ☐
Chain-of-custody seal on cooler: Yes ☐ Number: No ☐
Analysis turnaround: Priority ☐ hrs. Regular ☐
See Work Order ☐
See Analysis Request Form ☐
Sample Disposal Return to Baker ☐ Lab Disposal ☐
Archive until: (date)

NOTES:
(1) A - Air; GW - Groundwater; L - Leachate; S - Spring; SS - Surface Soil; SB - SubSurface Soil; SW - Surface Water; W - Waste; WP - Wipe; WW - Wastewater
(2) GB - Grab; COM - Composite
(3) P - Plastic; G - Glass

White - Return with analytical results; Yellow - Laboratory Copy; Pink - Field Copy

Courier Name: Fed Ex
Courier Pickup Number:
File Name:

Baker Environmental, Inc.
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108
412-269-6000
412-269-6097 (fax)

CHAIN-OF-CUSTODY RECORD

Lab and BOA #:
Delivery Order #
Project Number: 62470-259/367
Project Name: LTM O and M
Field Team: Trebilcock/Krivan
SEND RESULTS TO:

Notes ~~Sample Number~~	1996 Date	Time	Sample Location	Matrix Type (1) GB (2)	Matrix Type (1) COM (2)	Number of Container(s)	Analytical Methods: TCL VOAs	List 2 Metals	Oil and Grease	TSS/TDS	Type of Container(s) (3)	General Comments: Sample ID ~~Remarks~~
							G	P	G	P		COC# OU102-96C
Routine	7/10	1620	Site 78	GW		2						78-~~6400~~ EXW02-96C
Turn	7/10	1850	" 24	GW		2						24-GW08-96C
	7/11	0930	" 78	GW		2						78-GW31DW-96C
	7/11	1040	" 24	GW		2	1	1	1			24-GW10-96C
	7/11	1250	" 24	GW		2						24-GW09-96C
	7/11	1530	" 78	GW		2						78-GW09IW-96C
	7/11	1800	" 78	GW		2	1	1	1			78-GW09-96C
	7/12	0800	" 78	GW		2	1	1	1			78-GW14-96C
	7/12	1200	"	W		2						78-TB01-96C

Relinquished By: T. Trebilcock Date: _____ Time: _____
Received By: _____ Date: _____ Time: _____
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐ _____

Relinquished By: _____ Date: _____ Time: _____
Received By: _____ Date: _____ Time: _____
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐ _____

Relinquished By: _____ Date: _____ Time: _____
Received By: _____ Date: _____ Time: _____
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐ _____

Sample Stored at 4 Degrees C: Yes ☒ No ☐
Chain-of-custody seal on cooler: Yes ☒ Number: _____ No ☐
Analysis turnaround: Priority ☐ _____ hrs. Regular ☒
See Work Order ☐
See Analysis Request Form ☐
Sample Disposal Return to Baker ☐ Lab Disposal ☒
Archive until: _____ (date)

NOTES:
(1) A - Air; GW - Groundwater; L - Leachate; S - Spring; SS - Surface Soil; SB - SubSurface Soil; SW - Surface Water; W - Waste; WP - Wipe; WW - Wastewater
(2) GB - Grab; COM - Composite
(3) P - Plastic; G - Glass

White - Return with analytical results; Yellow - Laboratory Copy; Pink - Field Copy

Courier Name: FedEx
Courier Pickup Number: _____
File Name: _____

Baker Environmental, Inc.
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108
412-269-6000
412-269-6097 (fax)

CHAIN-OF-CUSTODY RECORD

Folder 1 of 2
Pg. 1 of 1

Lab and BOA #:
Delivery Order #
Project Number: 62470-259/369
Project Name: LTM & O and M
Field Team: Trebilcock / Kcivan
SEND RESULTS TO: Trebilcock

Notes ~~Sample Number~~	1996 Date	Time	Sample Location	Matrix Type (1) GB (2)	Matrix Type (1) COM (2)	Analytical Methods: TCL VOAs	List 2 Metals	Oil and Grease	TSS/TDS	Type of Container(s) (3)	Number of Container(s)	General Comments: Sample ID Remarks
										G	P	G	P		
Routine	7/14	1200	78	GW		2	1	1	1						78-GW08-96C
Twin	7/14	1340	78	GW		2	1	1	1						78-GW23-96C
"	7/14	1930	78	GW		2	1	1	1						78-GW15-96C
"	7/15	1100	78	GW		2	Ø		1						78-GWØ9DW-96C
"	7/15	1150	78	GW		2			1						78-GW11-96C
"	7/15	1330	78	GW		2			1						78-GW17-96C
"	7/15	1545	78	GW		2			1						78-GW24DW-96C
	7/15	1600	78	GW		2									78-TBØ1-96C

COC #
· OU1Ø3-96C

Relinquished By: [signature] Date: 7/15/96 Time: 1800
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Sample Stored at 4 Degrees C: Yes ☒ No ☐
Chain-of-custody seal on cooler: Yes ☒ Number: No ☐
Analysis turnaround: Priority ☐ hrs. Regular ☒
See Work Order ☐
See Analysis Request Form ☐

Sample Disposal Return to Baker ☐ Lab Disposal ☒
Archive until: (date)

NOTES:
(1) A - Air; GW - Groundwater; L - Leachate; S - Spring; SS - Surface Soil; SB - SubSurface Soil; SW - Surface Water; W - Waste; WP - Wipe; WW - Wastewater
(2) GB - Grab; COM - Composite
(3) P - Plastic; G - Glass

White - Return with analytical results; Yellow - Laboratory Copy; Pink - Field Copy

Courier Name: FedEx
Courier Pickup Number: 136979793
File Name:

Baker

Baker Environmental, Inc.
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108
412-269-6000
412-269-6097 (fax)

CHAIN-OF-CUSTODY RECORD

Lab and BOA #:
Delivery Order #
Project Number: 62470-259/337
Project Name: LTM & O and M
Field Team: Trebilcock / Kriuan
SEND RESULTS TO: Trebilcock

Notes ~~Sample Number~~	1996 Date	Time	Sample Location	Matrix Type (1) GB (2)	Matrix Type (1) COM (2)	Analytical Methods: TCL VOAs	List 2 Metals	Oil and Grease	TSS/TDS								General Comments: ~~Remarks~~ / Sample ID
						Type of Container(s) (3) G	P	G	P								
						Number of Container(s)											
Routine	7/15	1100					1	1									78-GW09DW-96C
Turn	7/15	1150					1	1									78-GW11-96C
↓	7/15	1330					1	1									78-GW17-96C
↓	7/15	1545					1	1									78-GW24DW-96C
Blank	7/15	1900				2	1										78-TB03-96C
Routine	7/15	1850				2	1		1								78-GW04-96C
↓	7/16	0820				2	1		1								78-GW10-96C
↓	7/16	1130				2	1		1								78-GW19-96C

COC # OU104-96C

Relinquished By: [signature] Date: 7/16 Time: 1500
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Sample Stored at 4 Degrees C: Yes ☒ No ☐
Chain-of-custody seal on cooler: Yes ☒ Number: No ☐
Analysis turnaround: Priority ☐ hrs. Regular ☒
See Work Order ☐
See Analysis Request Form ☐

Sample Disposal: Return to Baker ☐ Lab Disposal ☒
Archive until: (date)

NOTES:
(1) A - Air; GW - Groundwater; L - Leachate; S - Spring; SS - Surface Soil; SB - SubSurface Soil; SW - Surface Water; W - Waste; WP - Wipe; WW - Wastewater
(2) GB - Grab; COM - Composite
(3) P - Plastic; G - Glass

White - Return with analytical results; Yellow - Laboratory Copy; Pink - Field Copy

Courier Name: FedEx
Courier Pickup Number: 136979992
File Name:

Baker Environmental, Inc.
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108
412-269-6000
412-269-6097 (fax)

CHAIN-OF-CUSTODY RECORD

Lab and BOA #:
Delivery Order #
Project Number: 62470-259/367
Project Name: LTM
Field Team: Trebilcock/Kcivan
SEND RESULTS TO: Trebilcock

Notes ~~Sample Number~~	1996 Date	Time	Sample Location	Matrix Type (1) GB (2)	Matrix Type (1) COM (2)	Analytical Methods: TCL VOAs	List 2 Metals	Oil and Grease	TSS/TDS								General Comments: Sample ID ~~Remarks~~
						Type of Container(s) (3) G	P	G	P								
						Number of Container(s)											
Routine	7/15	1850		GW				1									78-GW04-96C
Turn	7/16	0820		GW				1									78-GW10-96C
↓	7/16	1130		GW				1									78-GW19-96C
↓	7/16	1945		GW		2	1	1	1								78-GW25-96C
↓	7/16	1845		GW		2	1	1	1								78-GW24-96C
Blank	7/16	2000				2											78-TB04-96C
	7/17	0845		GW		2		1	1								78-GW24IN-96C
	7/17	0945		GW		2			1								78-GW22A-96C
	7/17	1105		GW		2			1								78-GW21-96C

Relinquished By: Th Z Trebilcock Date: 7/17/96 Time: 1500
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Sample Stored at 4 Degrees C: Yes ☒ No ☐
Chain-of-custody seal on cooler: Yes ☒ Number: No ☐
Analysis turnaround: Priority ☐ hrs. Regular ☒
See Work Order ☐
See Analysis Request Form ☐
Sample Disposal Return to Baker ☐ Lab Disposal ☒
Archive until: (date)

NOTES:
(1) A - Air; GW - Groundwater; L - Leachate; S - Spring; SS - Surface Soil; SB - SubSurface Soil; SW - Surface Water; W - Waste; WP - Wipe; WW - Wastewater
(2) GB - Grab; COM - Composite
(3) P - Plastic; G - Glass

White - Return with analytical results; Yellow - Laboratory Copy; Pink - Field Copy

Courier Name: FedEx
Courier Pickup Number: 1350979981
File Name:

Baker Environmental, Inc.
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108
412-269-6000
412-269-6097 (fax)

CHAIN-OF-CUSTODY RECORD

Lab and BOA #:
Delivery Order #:
Project Number: 62470-259/367
Project Name: LTM
Field Team: Trebilcock
SEND RESULTS TO: Trebilcock

Notes ~~Sample Number~~	1996 Date	Time	Sample Location	Matrix Type (1) GB (2)	Matrix Type (1) COM (2)	Type of Container(s) (3)	Analytical Methods: TCL VOAs	List 2 Metals	Oil and Grease	TSS/TDS								General Comments: Sample ID ~~Remarks~~
						G	P	G	P									
						Number of Container(s)												
Routine	7/17	0845		GW			1											78-GW24IW-96C
Turn	7/17	0945		GW			1	1										78-GW22A-96C
	7/17	1105		GW			1	1										78-GW21-96C
	7/17	1530		GW		2	1	1	1									78-EXW01-96C
	7/17	1645		GW		2	1	1	1									78-EXW04-96C
	7/17	1735		GW		2	X		1									78-GW01-96C
	7/17	1905		GW		2												78-GW22B-96C
	7/17	2010		GW		2												78-GW05-96C
	7/18	0815		GW		2												78-GW39-96C
	7/18	0930		GW		2												78-EXW03-96C

General Comments: COC # 01106-96C

Relinquished By: [signature] Date: 7/18/96 Time: 1500
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Sample Stored at 4 Degrees C: Yes ☒ No ☐
Chain-of-custody seal on cooler: Yes ☒ Number: No ☐
Analysis turnaround: Priority ☐ hrs. Regular ☒
See Work Order ☐
See Analysis Request Form ☐
Sample Disposal: Return to Baker ☐ Lab Disposal ☒
Archive until: (date)

NOTES:
(1) A - Air; GW - Groundwater; L - Leachate; S - Spring; SS - Surface Soil; SB - SubSurface Soil; SW - Surface Water; W - Waste; WP - Wipe; WW - Wastewater
(2) GB - Grab; COM - Composite
(3) P - Plastic; G - Glass

White - Return with analytical results; Yellow - Laboratory Copy; Pink - Field Copy

Courier Name: FedEx
Courier Pickup Number: 1369799970
File Name:

Baker Environmental, Inc.
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108
412-269-6000
412-269-6097 (fax)

CHAIN-OF-CUSTODY RECORD

Lab and BOA #:
Delivery Order #
Project Number: 62470-259/369
Project Name: LTM
Field Team: Trebilcock
SEND RESULTS TO: 11

Notes ~~Sample Number~~	1996 Date	Time	Sample Location	Matrix Type (1) GB (2)	Matrix Type (1) COM (2)	Type of Container(s) (3)	Number of Container(s)	Analytical Methods: TCL VOAs	General Comments: ~~Remarks~~
						G			COC # 01106-96C; Sample ID
Routine	7/18	1055		GW			2		78-EXW09-96C
Turn	7/18	1100	Blank				2		78-TB0[illegible]5-96C

Relinquished By: [signature] Date: 7/18/96 Time: 1500
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Sample Stored at 4 Degrees C: Yes ☒ No ☐
Chain-of-custody seal on cooler: Yes ☒ Number: No ☐
Analysis turnaround: Priority ☐ hrs. Regular ☒
See Work Order ☐
See Analysis Request Form ☐

Sample Disposal Return to Baker ☐ Lab Disposal ☒
Archive until: (date)

NOTES:
(1) A - Air; GW - Groundwater; L - Leachate; S - Spring; SS - Surface Soil; SB - SubSurface Soil; SW - Surface Water; W - Waste; WP - Wipe; WW - Wastewater
(2) GB - Grab; COM - Composite
(3) P - Plastic; G - Glass

White - Return with analytical results; Yellow - Laboratory Copy; Pink - Field Copy

Courier Name: FedEX
Courier Pickup Number: 136
File Name:

Baker Environmental, Inc.
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108
412-269-6000
412-269-6097 (fax)

CHAIN-OF-CUSTODY RECORD

Lab and BOA #:
Delivery Order #
Project Number: 62470-259/367
Project Name: LTM
Field Team: Trebilcock
SEND RESULTS TO: "

Notes ~~Sample Number~~	1996 Date	Time	Sample Location	Matrix Type (1) GB (2)	Matrix Type (1) COM (2)	Type of Container(s) (3)	Number of Container(s)	Analytical Methods: TCL VOAs	Analytical Methods: List 2 Metals	Analytical Methods: Oil and Grease	Analytical Methods: TSS/TDS	General Comments: ~~Remarks~~ Sample ID
						G	P	G	P			
Routine	7/17	1335		GW			1	1				78-GW01-96C
Trip	7/17	1905		GW			1	1	1			78-GW22B-96C
	7/17	2010		GW			1	1	1			78-GW05-96C
	7/18	0815		GW			1	1	1			78-GW39-96C
	7/18	0930		GW			1	1	1			78-EXW03-96C
	7/18	1055		GW			1	1	1			78-EXW09-96C

COC # 01107-96C

Relinquished By: [signature] Date: 7/18/96 Time: 1500
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Relinquished By: Date: Time:
Received By: Date: Time:
Shipped by (check one): Hand ☐ Overnight ☐ Other ☐

Sample Stored at 4 Degrees C: Yes ☒ No ☐
Chain-of-custody seal on cooler: Yes ☒ Number: No ☐
Analysis turnaround: Priority ☐ hrs. Regular ☒
See Work Order ☐
See Analysis Request Form ☐
Sample Disposal Return to Baker ☐ Lab Disposal ☒
Archive until: (date)

NOTES:
(1) A - Air; GW - Groundwater; L - Leachate; S - Spring; SS - Surface Soil; SB - SubSurface Soil; SW - Surface Water; W - Waste; WP - Wipe; WW - Wastewater
(2) GB - Grab; COM - Composite
(3) P - Plastic; G - Glass

White - Return with analytical results; Yellow - Laboratory Copy; Pink - Field Copy

Courier Name: Fed Ex
Courier Pickup Number: 1369799970
File Name:

ATTACHMENT C
SAMPLE TRACKING FORM

Sample Tracking and Chain-of-Custody Documentation - Sites 24 and 78
Monitoring and O&M Program Support, CTO-367
MCB, Camp Lejeune, North Carolina

MATRIX	DATE SHIPPED	SAMPLE ID	Analysis Requested					Analysis Received					DATE RECEIVED	TURNAROUND TIME	RFW #	COMMENTS
			TCL Volatiles (EPA 8260)	TAL Metals (SW 6010/7470)	Oil & Grease (SW 9070)	Total Dissolved Solids	Total Suspended Solids	TCL Volatiles (EPA 8260)	TAL Metals (SW 6010/7470)	Oil & Grease (SW 9070)	Total Dissolved Solids	Total Suspended Solids				
Groundwater		**COC# OU101-96C**												0		
	7/13/96	78-EXW02-96C		X	X	X	X		X	X	X	X	8/8/96	25	9607G209	
	7/13/96	24-GW08-96C		X	X	X	X		X	X	X	X	8/8/96	25	9607G209	
	7/13/96	78-GW31DW-96C		X	X	X	X		X	X	X	X	8/8/96	25	9607G209	
	7/13/96	24-GW09-96C		X	X	X	X		X	X	X	X	8/8/96	25	9607G209	
	7/13/96	78-GW09IW-96C		X	X	X	X		X	X	X	X	8/8/96	25	9607G209	
		COC# OU102-96C												0		
	7/13/96	78-EXW02-96C	X					X					8/8/96	25	9607G209	
	7/13/96	24-GW08-96C	X					X					8/8/96	25	9607G209	
	7/13/96	78-GW31DW-96C	X					X					8/8/96	25	9607G209	
	7/13/96	24-GW09-96C	X					X					8/8/96	25	9607G209	
	7/13/96	78-GW09IW-96C	X					X					8/8/96	25	9607G209	
	7/13/96	24-GW10-96C	X	X	X	X	X	X	X	X	X	X	8/8/96	25	9607G209	
	7/13/96	78-GW09-96C	X	X	X	X	X	X	X	X	X	X	8/8/96	25	9607G209	
	7/13/96	78-GW14-96C	X	X	X	X	X	X	X	X	X	X	8/8/96	25	9607G209	
	7/13/96	78-TB01-96C	X					X					8/8/96	25	9607G209	
		COC# OU103-96C												0		
	7/15/96	78-GW08-96C	X	X	X	X	X	X	X	X	X	X	8/15/96	30	9607G242	
	7/15/96	78-GW23-96C	X	X	X	X	X	X	X	X	X	X	8/15/96	30	9607G242	
	7/15/96	78-GW15-96C	X	X	X	X	X	X	X	X	X	X	8/15/96	30	9607G242	
	7/15/96	78-GW09DW-96C	X			X	X	X			X	X	8/15/96	30	9607G242	
	7/15/96	78-GW11-96C	X			X	X	X			X	X	8/15/96	30	9607G242	
	7/15/96	78-GW17-96C	X			X	X	X			X	X	8/15/96	30	9607G242	
	7/15/96	78-GW24DW-96C	X			X	X	X			X	X	8/15/96	30	9607G242	
	7/15/96	78-TB02-96C	X					X					8/15/96	30	9607G242	

Sample Tracking and Chain-of-Custody Documentation - Sites 24 and 78
Monitoring and O&M Program Support, CTO-367
MCB, Camp Lejeune, North Carolina

MATRIX	DATE SHIPPED	SAMPLE ID	Analysis Requested					Analysis Received					DATE RECEIVED	TURNAROUND TIME	RFW #	COMMENTS
			TCL Volatiles (EPA 8260)	TAL Metals (SW 6010/7470)	Oil & Grease (SW 9070)	Total Dissolved Solids	Total Suspended Solids	TCL Volatiles (EPA 8260)	TAL Metals (SW 6010/7470)	Oil & Grease (SW 9070)	Total Dissolved Solids	Total Suspended Solids				
Groundwater		**COC# OU104-96C**												0		
	7/16/96	78-GW09DW-96C		X	X				X	X			8/15/96	29	9607G242	
	7/16/96	78-GW11-96C		X	X				X	X			8/15/96	29	9607G242	
	7/16/96	78-GW17-96C		X	X				X	X			8/15/96	29	9607G242	
	7/16/96	78-GW24DW-96C		X	X				X	X			8/15/96	29	9607G242	
	7/16/96	78-TB03-96C	X					X					8/15/96	29	9607G242	
	7/16/96	78-GW04-96C	X	X	X	X	X	X	X	X	X	X	8/15/96	29	9607G242	
	7/16/96	78-GW10-96C	X	X	X	X	X	X	X	X	X	X	8/15/96	29	9607G242	
	7/16/96	78-GW19-96C	X	X	X	X	X	X	X	X	X	X	8/15/96	29	9607G242	
		COC# OU105-96C												0		
	7/17/96	78-GW04-96C			X					X			8/22/96	35	9607G334	
	7/17/96	78-GW10-96C			X					X			8/22/96	35	9607G334	
	7/17/96	78-GW19-96C			X					X			8/22/96	35	9607G334	
	7/17/96	78-GW25-96C	X	X	X	X	X	X	X	X	X	X	8/22/96	35	9607G334	
	7/17/96	78-GW24-96C	X	X	X	X	X	X	X	X	X	X	8/22/96	35	9607G334	
	7/17/96	78-TB04-96C	X					X					8/22/96	35	9607G334	
	7/17/96	78-GW24IW-96C	X		X	X	X	X		X	X	X	8/22/96	35	9607G334	
	7/17/96	78-GW22A-96C	X			X	X	X			X	X	8/22/96	35	9607G334	
	7/17/96	78-GW21-96C	X			X	X	X			X	X	8/22/96	35	9607G334	

Sample Tracking and Chain-of-Custody Documentation - Sites 24 and 78
Monitoring and O&M Program Support, CTO-367
MCB, Camp Lejeune, North Carolina

MATRIX	DATE SHIPPED	SAMPLE ID	Analysis Requested					Analysis Received					DATE RECEIVED	TURNAROUND TIME	RFW #	COMMENTS
			TCL Volatiles (EPA 8260)	TAL Metals (SW 6010/7470)	Oil & Grease (SW 9070)	Total Dissolved Solids	Total Suspended Solids	TCL Volatiles (EPA 8260)	TAL Metals (SW 6010/7470)	Oil & Grease (SW 9070)	Total Dissolved Solids	Total Suspended Solids				
Groundwater		**COC# OU106-96C**												0		
	7/18/96	78-GW24IW-96C		X					X				8/22/96	34	9607G334	
	7/18/96	78-GW22A-96C		X	X				X	X			8/22/96	34	9607G334	
	7/18/96	78-GW21-96C		X	X				X	X			8/22/96	34	9607G334	
	7/18/96	78-EXW01-96C	X	X	X	X	X	X	X	X	X	X	8/22/96	34	9607G334	
	7/18/96	78-EXW04-96C	X	X	X	X	X	X	X	X	X	X	8/22/96	34	9607G334	
	7/18/96	78-GW01-96C	X			X	X	X			X	X	8/22/96	34	9607G334	
	7/18/96	78-GW22B-96C	X					X					8/22/96	34	9607G334	
	7/18/96	78-GW05-96C	X					X					8/22/96	34	9607G334	
	7/18/96	78-GW39-96C	X					X					8/22/96	34	9607G334	
	7/18/96	78-EXW03-96C	X					X					8/22/96	34	9607G334	
	7/18/96	78-EXW09-96C	X					X					8/22/96	34	9607G334	
	7/18/96	78-TB05-96C	X					X					8/22/96	34	9607G334	
		C0C# OU107-96C												0		
	7/18/96	78-GW01-96C		X	X				X	X			8/22/96	34	9607G334	
	7/18/96	78-GW22B-96C		X	X	X	X		X	X	X	X	8/22/96	34	9607G334	
	7/18/96	78-GW05-96C		X	X	X	X		X	X	X	X	8/22/96	34	9607G334	
	7/18/96	78-GW39-96C		X	X	X	X		X	X	X	X	8/22/96	34	9607G334	
	7/18/96	78-EXW03-96C		X	X	X	X		X	X	X	X	8/22/96	34	9607G334	
	7/18/96	78-EXW09-96C		X	X	X	X		X	X	X	X	8/22/96	34	9607G334	
														0		
TOTAL ANALYSES			36	31	34	31	31	36	31	34	31	31				

TAL Metals (SW 6010/7470) - Antimony, Arsenic, Beryllium, Chromium, Iron, Lead, Nickel, Mercury, Manganese

ATTACHMENT D
SAMPLE DESIGNATIONS

SAMPLE DESIGNATIONS

In order to accurately identify and differentiate samples collected during the monitoring program, all samples were designated with a unique identification number. The unique sample number identifies the site, the sample media, the sampling station's number, and the quarter in which the sample was collected. The sample designation format is as follows:

Site Number - Sample Station Identifier - Year and Quarter

An explanation of each identifier is provided below:

Site Number	The investigation was conducted at Sites 24 and 78.
Sample Station Identifier	Each monitoring well has been assigned a unique identification number. The identification number may include the qualifiers "DW" which denotes a deep monitoring well, "IW" which denotes an intermediate monitoring well, "EXW" which denotes a contaminant recovery well, or "GW" which denotes groundwater.
Year	The investigation was conducted during 1996.
Quarter	The investigation was conducted during the third quarter. The four quarters of year are identified by the first four letters of the alphabet (i.e., A, B, C and D).

Under this sample designation format the sample number 78-GW09DW-96C refers to:

78-GW09DW-96C	Site 78
78-GW09DW-96C	Groundwater sample
78-GW09DW-96C	Monitoring well No.9
78-GW09DW-96C	Deep monitoring well
78-GW09DW-96C	Year 1996.
78-GW09DW-96C	The third quarter (i.e., July through September)

This sample designation format has also been applied to sampling results collected during previous quarterly monitoring events.

ATTACHMENT E
MONITORING PROGRAM ANALYTICAL RESULTS

SYMBOL KEY

NA	=	Not Analyzed
MG/L	=	Milligrams Per Liter or Parts Per Million
U	=	Not Detected
UG/L	=	Micrograms Per Liter or Parts Per Billion

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	24-GW08-96C	24-GW09-96C	24-GW10-96C	78-EXW01-95C	78-EXW01-95D	78-EXW01-96A
DATE SAMPLED	07/10/96	07/11/96	07/11/96	07/13/95	10/29/95	01/18/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
BROMOMETHANE	0.5 U	0.5 U	0.5 U	NA	NA	NA
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
METHYLENE CHLORIDE	0.5 U	0.5 U	0.5 U	5.7	400 U	5 U
ACETONE	2 U	2 U	2 U	NA	NA	NA
CARBON DISULFIDE	2 U	2 U	2 U	NA	NA	NA
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	0.5 U	0.5 U	0.5 U	NA	NA	NA
CHLOROFORM	0.5 U	0.5 U	0.5 U	1 U	100 U	2 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
2-BUTANONE	2 U	2 U	2 U	NA	NA	NA
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
CIS - 1,3 - DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
BENZENE	0.5 U	0.5 U	0.5 U	1 U	50 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	24-GW08-96C	24-GW09-96C	24-GW10-96C	78-EXW01-95C	78-EXW01-95D	78-EXW01-96A
DATE SAMPLED	07/10/96	07/11/96	07/11/96	07/13/95	10/29/95	01/18/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
4-METHYL-2-PENTANONE	2 U	2 U	2 U	NA	NA	NA
2-HEXANONE	2 U	2 U	2 U	NA	NA	NA
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
TOLUENE	0.5 U	0.5 U	0.5 U	1 U	50 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	1 U	50 U	0.5 U
STYRENE	0.5 U	0.5 U	0.5 U	NA	NA	NA
XYLENE (TOTAL)	0.5 U	0.5 U	0.5 U	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	NA	0.5 U	NA	NA
1,2-DICHLOROBENZENE	NA	NA	NA	0.5 U	50 U	0.5 U
1,3-DICHLOROBENZENE	NA	NA	NA	0.5 U	50 U	0.5 U
1,4-DICHLOROBENZENE	NA	NA	NA	NA	50 U	0.5 U
2-CHLOROETHYL VINYL ETHER	NA	NA	NA	4 U	400 U	4 U
BROMOETHANE	NA	NA	NA	0.5 U	50 U	0.5 U
DICHLORODIFLUOROMETHANE	NA	NA	NA	0.5 U	50 U	0.5 U
M & P-XYLENE	NA	NA	NA	2 U	100 U	1 U
O-XYLENE	NA	NA	NA	1 U	25 U	0.5 U
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	0.5 U	50 U	0.5 U
TRICHLOROFLUOROMETHANE	NA	NA	NA	0.5 U	50 U	1 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW01-96B	78-EXW01-96C	78-EXW02-95C	78-EXW02-95D	78-EXW02-96A	78-EXW02-96B
DATE SAMPLED	04/10/96	07/17/96	07/13/95	10/26/95	01/18/96	04/10/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	5 U	0.5 U	0.5 U	12.5 U	0.5 U	5 U
BROMOMETHANE	NA	0.5 U	NA	NA	NA	NA
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	4 U	0.5 U	6.1	100 U	5 U	4 U
ACETONE	NA	2 U	NA	NA	NA	NA
CARBON DISULFIDE	NA	2 U	NA	NA	NA	NA
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	NA	0.5 U	NA	NA	NA	NA
CHLOROFORM	1 U	0.5 U	1 U	25 U	2 U	1 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
2-BUTANONE	NA	2 U	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
CIS - 1,3 - DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
BENZENE	0.5 U	0.5 U	1 U	12.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW01-96B	78-EXW01-96C	78-EXW02-95C	78-EXW02-95D	78-EXW02-96A	78-EXW02-96B
DATE SAMPLED	04/10/96	07/17/96	07/13/95	10/26/95	01/18/96	04/10/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
4-METHYL-2-PENTANONE	NA	2 U	NA	NA	NA	NA
2-HEXANONE	NA	2 U	NA	NA	NA	NA
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
TOLUENE	0.5 U	0.5 U	1 U	12.5 U	0.5 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	12.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.6	0.5 U	1 U	12.5 U	0.5 U	0.6
STYRENE	NA	0.5 U	NA	NA	NA	NA
XYLENE (TOTAL)	NA	0.5 U	NA	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	0.5 U	NA	NA	NA
1,2-DICHLOROBENZENE	0.5 U	NA	0.5 U	12.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	NA	0.5 U	12.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	NA		12.5 U	0.5 U	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	NA	4 U	100 U	4 U	4 U
BROMOETHANE	5 U	NA	0.5 U	12.5 U	0.5 U	5 U
DICHLORODIFLUOROMETHANE	5 U	NA	0.5 U	12.5 U	0.5 U	5 U
M & P-XYLENE	1 U	NA	2 U	25 U	1 U	1 U
O-XYLENE	0.5 U	NA	1 U	12.5 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.5 U	NA	0.5 U	12.5 U	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	NA	0.5 U	12.5 U	1 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW02-96C	78-EXW03-95C	78-EXW03-95D	78-EXW03-96A	78-EXW03-96B	78-EXW03-96C
DATE SAMPLED	07/10/96	07/09/95	10/28/95	01/18/96	04/16/96	07/18/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
BROMOMETHANE	0.5 U	NA	NA	NA	NA	0.5 U
VINYL CHLORIDE	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
METHYLENE CHLORIDE	0.5 U	0.5 U	4 U	5 U	4 U	0.5 U
ACETONE	2 U	NA	NA	NA	NA	2 U
CARBON DISULFIDE	2 U	NA	NA	NA	NA	2 U
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	0.5 U	NA	NA	NA	NA	0.5 U
CHLOROFORM	0.5 U	1 U	3.1	2 U	1 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
2-BUTANONE	2 U	NA	NA	NA	NA	2 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
BROMODICHLOROMETHANE	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
CIS - 1,3 - DICHLOROPROPENE	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
DIBROMOCHLOROMETHANE	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
BENZENE	0.5 U	1.7	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW02-96C	78-EXW03-95C	78-EXW03-95D	78-EXW03-96A	78-EXW03-96B	78-EXW03-96C
DATE SAMPLED	07/10/96	07/09/95	10/28/95	01/18/96	04/16/96	07/18/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	2 U	NA	NA	NA	NA	2 U
2-HEXANONE	2 U	NA	NA	NA	NA	2 U
TETRACHLOROETHENE	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
TOLUENE	0.5 U	1 U	0.5 U	0.5 U	0.9	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	1 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	NA	NA	NA	NA	0.5 U
XYLENE (TOTAL)	0.5 U	NA	NA	NA	NA	0.5 U
1,1-DICHLOROBENZENE	NA	0.5 U	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,3-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,4-DICHLOROBENZENE	NA	NA	0.5 U	0.5 U	0.5 U	NA
2-CHLOROETHYL VINYL ETHER	NA	4 U	4 U	4 U	4 U	NA
BROMOETHANE	NA	0.5 U	0.5 U	0.5 U	5 U	NA
DICHLORODIFLUOROMETHANE	NA	0.5 U	0.5 U	0.5 U	5 U	NA
M & P-XYLENE	NA	2 U	1 U	1 U	1 U	NA
O-XYLENE	NA	1 U	0.5 U	0.5 U	0.5 U	NA
TRANS-1,2-DICHLOROETHENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
TRICHLOROFLUOROMETHANE	NA	0.5 U	0.5 U	1 U	0.5 U	NA

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW04-95C	78-EXW04-95D	78-EXW04-96A	78-EXW04-96B	78-EXW04-96C	78-EXW05-95C
DATE SAMPLED	07/13/95	10/27/95	01/18/96	04/11/96	07/17/96	07/14/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	25 U	0.5 U	5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	NA	NA	0.5 U	NA
VINYL CHLORIDE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	5.9	200 U	5 U	4 U	0.5 U	6.8
ACETONE	NA	NA	NA	NA	2 U	NA
CARBON DISULFIDE	NA	NA	NA	NA	2 U	NA
1,1-DICHLOROETHENE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	0.5 U	NA
CHLOROFORM	1 U	50 U	2 U	1 U	0.5 U	1 U
1,2-DICHLOROETHANE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	NA	NA	2 U	NA
1,1,1-TRICHLOROETHANE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS - 1,3 - DICHLOROPROPENE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	0.6	25 U	0.5 U	0.7	0.5 U	7.9
DIBROMOCHLOROMETHANE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	1 U	25 U	0.5 U	0.5 U	0.5 U	1 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW04-95C	78-EXW04-95D	78-EXW04-96A	78-EXW04-96B	78-EXW04-96C	78-EXW05-95C
DATE SAMPLED	07/13/95	10/27/95	01/18/96	04/11/96	07/17/96	07/14/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
4-METHYL-2-PENTANONE	NA	NA	NA	NA	2 U	NA
2-HEXANONE	NA	NA	NA	NA	2 U	NA
TETRACHLOROETHENE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	1 U	25 U	0.5 U	1	0.5 U	1 U
CHLOROBENZENE	0.5 U	25 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	1 U	25 U	0.5 U	0.5 U	0.5 U	1 U
STYRENE	NA	NA	NA	NA	0.5 U	NA
XYLENE (TOTAL)	NA	NA	NA	NA	0.5 U	NA
1,1-DICHLOROBENZENE	0.5 U	NA	NA	NA	NA	0.5 U
1,2-DICHLOROBENZENE	0.5 U	25 U	0.5 U	0.5 U	NA	0.5 U
1,3-DICHLOROBENZENE	0.5 U	25 U	0.5 U	0.5 U	NA	0.5 U
1,4-DICHLOROBENZENE	NA	25 U	0.5 U	0.5 U	NA	NA
2-CHLOROETHYL VINYL ETHER	4 U	200 U	4 U	4 U	NA	4 U
BROMOETHANE	0.5 U	25 U	0.5 U	5 U	NA	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	25 U	0.5 U	5 U	NA	0.5 U
M & P-XYLENE	2 U	50 U	1 U	1 U	NA	2 U
O-XYLENE	1 U	25 U	0.5 U	0.5 U	NA	1 U
TRANS-1,2-DICHLOROETHENE	0.5 U	25 U	0.5 U	0.5 U	NA	1.4
TRICHLOROFLUOROMETHANE	0.5 U	25 U	1 U	0.5 U	NA	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW05-95D	78-EXW05-96A	78-EXW05-96B	78-EXW06-95C	78-EXW06-95D	78-EXW06-96A
DATE SAMPLED	10/26/95	01/19/96	04/09/96	07/13/95	10/26/95	01/19/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	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
METHYLENE CHLORIDE	4 U	5 U	4 U	6.4	4 U	5 U
ACETONE	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA
CHLOROFORM	1 U	2 U	1 U	1 U	1 U	2 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	NA	NA	NA	NA
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
BROMODICHLOROMETHANE	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
CIS - 1,3 - DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	9.1	17.8	13	6.6	17.2	0.5 U
DIBROMOCHLOROMETHANE	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
BENZENE	0.5 U	1	0.5 U	1 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW05-95D	78-EXW05-96A	78-EXW05-96B	78-EXW06-95C	78-EXW06-95D	78-EXW06-96A
DATE SAMPLED	10/26/95	01/19/96	04/09/96	07/13/95	10/26/95	01/19/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	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
TOLUENE	0.5 U	0.6 U	1	1 U	0.5 U	0.6 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	1 U	0.5 U	0.5 U
STYRENE	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	NA	0.5 U	NA	NA
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	4 U	4 U	4 U	4 U	4 U
BROMOETHANE	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
M & P-XYLENE	1 U	1 U	1 U	2 U	1 U	1 U
O-XYLENE	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.5 U	1.7	0.5 U	1.2	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW06-96B	78-EXW07-95C	78-EXW07-95D	78-EXW07-96A	78-EXW07-96B	78-EXW08-95C
DATE SAMPLED	04/09/96	07/13/95	10/29/95	01/19/96	04/09/96	07/13/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
BROMOMETHANE	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.3
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	4 U	0.5 U	4 U	5 U	4 U	6.1
ACETONE	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA
CHLOROFORM	1 U	1 U	8.6	2 U	1 U	1 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5
2-BUTANONE	NA	NA	NA	NA	NA	NA
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
BROMODICHLOROMETHANE	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
CIS - 1,3 - DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	74	0.5 U	7.9	0.5 U	12	6.7
DIBROMOCHLOROMETHANE	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
BENZENE	0.5 U	1.4	0.5 U	0.5 U	0.5 U	1.5

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW06-96B	78-EXW07-95C	78-EXW07-95D	78-EXW07-96A	78-EXW07-96B	78-EXW08-95C
DATE SAMPLED	04/09/96	07/13/95	10/29/95	01/19/96	04/09/96	07/13/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	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
TOLUENE	0.5 U	1.4	0.5 U	0.6 U	0.5 U	1.8
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	0.5 U	1 U	0.5 U	0.5 U	0.5 U	1 U
STYRENE	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA
1,1-DICHLOROBENZENE	NA	0.5 U	NA	NA	NA	0.5 U
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U		0.5 U	0.5 U	0.5 U	NA
2-CHLOROETHYL VINYL ETHER	4 U	4 U	4 U	4 U	4 U	4 U
BROMOETHANE	5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
DICHLORODIFLUOROMETHANE	5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
M & P-XYLENE	1 U	2 U	1 U	1 U	1 U	2 U
O-XYLENE	0.5 U	1 U	0.5 U	0.5 U	0.5 U	1 U
TRANS-1,2-DICHLOROETHENE	1.8	0.5 U	2.6	0.5 U	5.1	4.8
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW08-95D	78-EXW08-96A	78-EXW08-96B	78-EXW09-95C	78-EXW09-95D	78-EXW09-96A
DATE SAMPLED	10/26/95	01/19/96	04/09/96	07/13/95	10/28/95	01/19/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	12.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	100 U	5 U	4 U	0.5 U	4 U	5 U
ACETONE	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA
CHLOROFORM	25 U	2 U	1 U	1 U	8.6	2 U
1,2-DICHLOROETHANE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS - 1,3 - DICHLOROPROPENE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	12.5 U	0.5 U	17	0.5 U	2.2	0.5 U
DIBROMOCHLOROMETHANE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	12.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW08-95D	78-EXW08-96A	78-EXW08-96B	78-EXW09-95C	78-EXW09-95D	78-EXW09-96A
DATE SAMPLED	10/26/95	01/19/96	04/09/96	07/13/95	10/28/95	01/19/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	12.5 U	0.6 U	0.5 U	1 U	0.5 U	0.6 U
CHLOROBENZENE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	12.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
STYRENE	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	NA	0.5 U	NA	NA
1,2-DICHLOROBENZENE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	12.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
2-CHLOROETHYL VINYL ETHER	100 U	4 U	4 U	4 U	4 U	4 U
BROMOETHANE	12.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	12.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
M & P-XYLENE	25 U	1 U	1 U	2 U	1 U	1 U
O-XYLENE	12.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	13.1	0.5 U	6.8	0.5 U	0.7	0.5 U
TRICHLOROFLUOROMETHANE	12.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW09-96B	78-EXW09-96C	78-EXW10-95C	78-EXW10-95D	78-EXW10-96A	78-EXW10-96B
DATE SAMPLED	04/17/96	07/18/96	07/13/95	10/25/95	01/17/96	04/09/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	5 U	0.5 U	0.5 U	0.5 U	2 U	5 U
BROMOMETHANE	NA	0.5 U	NA	NA	NA	NA
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	1.8
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
METHYLENE CHLORIDE	4 U	0.5 U	0.5 U	5 U	10 U	4 U
ACETONE	NA	2 U	NA	NA	NA	NA
CARBON DISULFIDE	NA	2 U	NA	NA	NA	NA
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	NA	2	NA	NA		NA
CHLOROFORM	1 U	0.5 U	1 U	1 U	4 U	1 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	1.4	0.5 U	2 U	0.5 U
2-BUTANONE	NA	2 U	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	2.1
CIS - 1,3 - DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	55.9	8.7	15.4	23
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
BENZENE	0.5 U	0.5 U	451	118	106	81

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW09-96B	78-EXW09-96C	78-EXW10-95C	78-EXW10-95D	78-EXW10-96A	78-EXW10-96B
DATE SAMPLED	04/17/96	07/18/96	07/13/95	10/25/95	01/17/96	04/09/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
4-METHYL-2-PENTANONE	NA	2 U	NA	NA	NA	NA
2-HEXANONE	NA	2 U	NA	NA	NA	NA
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
TOLUENE	1.3	0.5 U	66.2	12.5	9.8	10
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	2 U	0.5 U
ETHYLBENZENE	0.5 U	0.5 U	54.7	175	62.4	33
STYRENE	NA	0.5 U	NA	NA	NA	NA
XYLENE (TOTAL)	NA	0.5 U	NA	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	0.5 U	NA	NA	NA
1,2-DICHLOROBENZENE	0.5 U	NA	0.5 U	0.5 U	2 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	NA	0.5 U	0.5 U	2 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	NA	NA	0.5 U	2 U	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	NA	4 U	4 U	8 U	4 U
BROMOETHANE	5 U	NA	0.5 U	0.5 U	2 U	5 U
DICHLORODIFLUOROMETHANE	5 U	NA	0.5 U	0.5 U	2 U	5 U
M & P-XYLENE	1 U	NA	149	299	116	59
O-XYLENE	0.5 U	NA	72.8	46.8	32	36
TRANS-1,2-DICHLOROETHENE	0.5 U	NA	3.1	0.5 U	2 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	NA	0.5 U	0.5 U	2 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW11-95C	78-EXW11-95D	78-EXW11-96A	78-EXW11-96B	78-GW01-95C	78-GW01-95D
DATE SAMPLED	07/13/95	10/25/95	01/17/96	04/09/96	07/09/95	10/25/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	NA	NA	NA	NA
VINYL CHLORIDE	192	85.3	488	1300	0.5 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.8	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	5.7	5 U	5 U	4 U	0.5 U	5 U
ACETONE	NA	NA	NA	NA	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA
1,1-DICHLOROETHENE	0.5 U	0.5 U	3.3	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	1.5	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA
CHLOROFORM	1 U	1 U	2 U	1 U	1 U	1 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	NA	NA	NA	NA
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
BROMODICHLOROMETHANE	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	1.5	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
TRICHLOROETHENE	0.5 U	0.5 U	1.3	1.4	40.8	34.9
DIBROMOCHLOROMETHANE	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
BENZENE	1.2	0.5 U	1.3	1.3	1 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-EXW11-95C	78-EXW11-95D	78-EXW11-96A	78-EXW11-96B	78-GW01-95C	78-GW01-95D
DATE SAMPLED	07/13/95	10/25/95	01/17/96	04/09/96	07/09/95	10/25/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	0.5 U	0.5 U	0.7	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
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA
2-HEXANONE	NA	NA	NA	NA	NA	NA
TETRACHLOROETHENE	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
TOLUENE	1.4	0.5 U	1.3	0.5 U	1 U	0.5 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	1 U	0.5 U	0.5 U	0.76	1 U	0.5 U
STYRENE	NA	NA	NA	NA	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA
1,1-DICHLOROBENZENE	0.5 U	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	4 U	4 U	4 U	4 U	4 U
BROMOETHANE	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
M & P-XYLENE	2 U	1 U	1 U	1 U	2 U	1 U
O-XYLENE	1 U	0.5 U	0.7	0.5 U	1 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	1.5	12	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	5.6	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW01-96A	78-GW01-96B	78-GW01-96C	78-GW04-95C	78-GW04-95D	78-GW04-96A
DATE SAMPLED	01/18/96	04/11/96	07/17/96	07/09/95	10/25/95	01/17/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	1 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	0.5 U	NA	NA	NA
VINYL CHLORIDE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	10.4 U	4 U	0.5 U	0.5 U	5 U	5 U
ACETONE	NA	NA	2 U	NA	NA	NA
CARBON DISULFIDE	NA	NA	2 U	NA	NA	NA
1,1-DICHLOROETHENE	1 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2
1,2-DICHLOROETHENE (TOTAL)	NA	NA	18	NA	NA	NA
CHLOROFORM	4.2 U	1 U	0.5 U	1 U	1 U	2 U
1,2-DICHLOROETHANE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	2 U	NA	NA	NA
1,1,1-TRICHLOROETHANE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS - 1,3 - DICHLOROPROPENE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	44.1	37		4	0.5 U	8
DIBROMOCHLOROMETHANE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW01-96A	78-GW01-96B	78-GW01-96C	78-GW04-95C	78-GW04-95D	78-GW04-96A
DATE SAMPLED	01/18/96	04/11/96	07/17/96	07/09/95	10/25/95	01/17/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-METHYL-2-PENTANONE	NA	NA	2 U	NA	NA	NA
2-HEXANONE	NA	NA	2 U	NA	NA	NA
TETRACHLOROETHENE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	1 U	0.9	0.5 U	1 U	0.5 U	0.5 U
CHLOROBENZENE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
STYRENE	NA	NA	0.5 U	NA	NA	NA
XYLENE (TOTAL)	NA	NA	0.5 U	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	1 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	1 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	1 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
2-CHLOROETHYL VINYL ETHER	8 U	4 U	NA	4 U	4 U	4 U
BROMOETHANE	1 U	5 U	NA	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	1 U	5 U	NA	0.5 U	0.5 U	0.5 U
M & P-XYLENE	2.1 U	1 U	NA	2 U	1 U	1 U
O-XYLENE	1 U	0.5 U	NA	1 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	1 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	2.1 U	0.5 U	NA	0.5 U	0.5 U	1 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW04-96B	78-GW04-96C	78-GW05-95C	78-GW05-95D	78-GW05-96A	78-GW05-96B
DATE SAMPLED	04/12/96	07/15/96	07/09/95	10/25/95	01/17/96	04/11/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
BROMOMETHANE	NA	0.5 U	NA	NA	NA	NA
VINYL CHLORIDE	2	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
METHYLENE CHLORIDE	4 U	0.5 U	0.5 U	5 U	5 U	4 U
ACETONE	NA	2 U	NA	NA	NA	NA
CARBON DISULFIDE	NA	2 U	NA	NA	NA	NA
1,1-DICHLOROETHENE	0.7	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
1,2-DICHLOROETHENE (TOTAL)	NA	0.5 U	NA	NA	NA	NA
CHLOROFORM	1 U	0.5 U	1 U	1 U	2 U	1 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	2 U	NA	NA	NA	NA
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
BROMODICHLOROMETHANE	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
CIS - 1,3 - DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	6.7	2	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
1,1,2-TRICHLOROETHANE	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	1 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW04-96B	78-GW04-96C	78-GW05-95C	78-GW05-95D	78-GW05-96A	78-GW05-96B
DATE SAMPLED	04/12/96	07/15/96	07/09/95	10/25/95	01/17/96	04/11/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	NA	2 U	NA	NA	NA	NA
2-HEXANONE	NA	2 U	NA	NA	NA	NA
TETRACHLOROETHENE	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
TOLUENE	1	0.5 U	1 U	1.2	0.5 U	1.7
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	1 U	0.5 U	0.5 U	0.5 U
STYRENE	NA	0.5 U	NA	NA	NA	NA
XYLENE (TOTAL)	NA	0.5 U	NA	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	NA	4 U	4 U	4 U	4 U
BROMOETHANE	5 U	NA	0.5 U	0.5 U	0.5 U	5 U
DICHLORODIFLUOROMETHANE	5 U	NA	0.5 U	0.5 U	0.5 U	5 U
M & P-XYLENE	1 U	NA	2 U	1 U	1 U	1.1
O-XYLENE	0.5 U	NA	1 U	0.5 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	NA	2.2	0.5 U	1 U	0.6

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW05-96C	78-GW08-95C	78-GW08-95D	78-GW08-96A	78-GW08-96B	78-GW08-96C
DATE SAMPLED	07/17/96	07/09/95	10/25/95	01/17/96	04/11/96	07/14/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
BROMOMETHANE	0.5 U	NA	NA	NA	NA	0.5 U
VINYL CHLORIDE	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
METHYLENE CHLORIDE	0.5 U	0.5 U	5 U	5 U	4 U	0.5 U
ACETONE	2 U	NA	NA	NA	NA	2 U
CARBON DISULFIDE	2 U	NA	NA	NA	NA	2 U
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	0.5 U	NA	NA	NA	NA	0.5 U
CHLOROFORM	0.5 U	1 U	1 U	2 U	1 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
2-BUTANONE	2 U	NA	NA	NA	NA	2 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
BROMODICHLOROMETHANE	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
CIS - 1,3 - DICHLOROPROPENE	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
DIBROMOCHLOROMETHANE	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
BENZENE	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW05-96C	78-GW08-95C	78-GW08-95D	78-GW08-96A	78-GW08-96B	78-GW08-96C
DATE SAMPLED	07/17/96	07/09/95	10/25/95	01/17/96	04/11/96	07/14/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS - 1,3 - DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	2 U	NA	NA	NA	NA	2 U
2-HEXANONE	2 U	NA	NA	NA	NA	2 U
TETRACHLOROETHENE	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
TOLUENE	0.5 U	1 U	0.8	0.5 U	1.4	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	1 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	NA	NA	NA	NA	0.5 U
XYLENE (TOTAL)	0.5 U	NA	NA	NA	NA	0.5 U
1,1-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,3-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,4-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
2-CHLOROETHYL VINYL ETHER	NA	4 U	4 U	4 U	4 U	NA
BROMOETHANE	NA	0.5 U	0.5 U	0.5 U	5 U	NA
DICHLORODIFLUOROMETHANE	NA	0.5 U	0.5 U	0.5 U	5 U	NA
M & P-XYLENE	NA	2 U	1 U	1 U	1	NA
O-XYLENE	NA	1 U	0.5 U	0.5 U	0.5	NA
TRANS-1,2-DICHLOROETHENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
TRICHLOROFLUOROMETHANE	NA	0.5 U	0.5 U	1 U	0.7	NA

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW09-95C	78-GW09-95D	78-GW09-96A	78-GW09-96B	78-GW09-96C	78-GW09DW-95C	78-GW09DW-95D
DATE SAMPLED	07/10/95	10/25/95	01/18/96	04/11/96	07/11/96	07/12/95	11/05/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES							
CHLOROMETHANE	0.5 U	10 U	8.3 U	5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	NA	NA	0.5 U	NA	NA
VINYL CHLORIDE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	100	83.3 U	4 U	0.5 U	0.5 U	3 U
ACETONE	NA	NA	NA	NA	2 U	NA	NA
CARBON DISULFIDE	NA	NA	NA	NA	2 U	NA	NA
1,1-DICHLOROETHENE	0.5 U	101	128	120	NA	0.5 U	0.5 U
1,1-DICHLOROETHANE	47.1	10 U	53.3	46	NA	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA
CHLOROFORM	1 U	20 U	33.3 U	1.2	4	1 U	1 U
1,2-DICHLOROETHANE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	NA	NA	2 U	NA	NA
1,1,1-TRICHLOROETHANE	290	383	358	280	NA	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS - 1,3 - DICHLOROPROPENE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	910	1100	946	320	NA	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	1.9	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	1 U	10 U	8.3 U	0.5 U	0.5 U	1 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW09-95C	78-GW09-95D	78-GW09-96A	78-GW09-96B	78-GW09-96C	78-GW09DW-95C	78-GW09DW-95D
DATE SAMPLED	07/10/95	10/25/95	01/18/96	04/11/96	07/11/96	07/12/95	11/05/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)							
TRANS - 1,3 - DICHLOROPROPENE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
4-METHYL-2-PENTANONE	NA	NA	NA	NA	2 U	NA	NA
2-HEXANONE	NA	NA	NA	NA	2 U	NA	NA
TETRACHLOROETHENE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	1 U	10 U	8.3 U	0.5 U	0.5 U	1 U	0.5 U
CHLOROBENZENE	0.5 U	10 U	8.3 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	1 U	10 U	8.3 U	0.5 U	0.5 U	1 U	0.5 U
STYRENE	NA	NA	NA	NA	0.5 U	NA	NA
XYLENE (TOTAL)	NA	NA	NA	NA	0.5 U	NA	NA
1,1-DICHLOROBENZENE	0.5 U	NA	NA	NA	NA	0.5 U	NA
1,2-DICHLOROBENZENE	0.5 U	10 U	8.3 U	0.5 U	NA	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	10 U	8.3 U	0.5 U	NA	0.5 U	0.5 U
1,4-DICHLOROBENZENE		10 U	8.3 U	0.5 U	NA	NA	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	80 U	66.7 U	4 U	NA	4 U	4 U
BROMOETHANE	0.5 U	10 U	8.3 U	5 U	NA	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	10 U	8.3 U	5 U	NA	0.5 U	0.5 U
M & P-XYLENE	2 U	20 U	16.7 U	1 U	NA	2 U	1 U
O-XYLENE	1 U	10 U	8.3 U	0.5 U	NA	1 U	0.5 U
TRANS-1,2-DICHLOROETHENE	6.8	10 U	13.3	7.1	NA	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	10 U	8.3 U	0.5 U	NA	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW09DW-96A	78-GW09DW-96B	78-GW09DW-96C	78-GW09IW-95C	78-GW09IW-95D	78-GW09IW-96A
DATE SAMPLED	01/21/96	04/17/96	07/15/96	07/12/95	11/06/95	01/20/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	0.5 U	NA	NA	NA
VINYL CHLORIDE	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
METHYLENE CHLORIDE	5 U	4 U	0.5 U	0.5 U	3 U	5 U
ACETONE	NA	NA	2 U	NA	NA	NA
CARBON DISULFIDE	NA	NA	2 U	NA	NA	NA
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	NA	NA	0.5 U	NA	NA	NA
CHLOROFORM	2 U	1 U	0.5 U	2	1 U	2 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	2 U	NA	NA	NA
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
BROMODICHLOROMETHANE	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
CIS-1,3-DICHLOROPROPENE	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
DIBROMOCHLOROMETHANE	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
BENZENE	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW09DW-96A	78-GW09DW-96B	78-GW09DW-96C	78-GW09IW-95C	78-GW09IW-95D	78-GW09IW-96A
DATE SAMPLED	01/21/96	04/17/96	07/15/96	07/12/95	11/06/95	01/20/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	NA	NA	2 U	NA	NA	NA
2-HEXANONE	NA	NA	2 U	NA	NA	NA
TETRACHLOROETHENE	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
TOLUENE	0.6 U	1.6	0.5 U	1 U	0.5 U	0.6 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	1 U	0.5 U	0.5 U
STYRENE	NA	NA	0.5 U	NA	NA	NA
XYLENE (TOTAL)	NA	NA	0.5 U	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	NA	0.5 U	NA	NA
1,2-DICHLOROBENZENE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	4 U	NA	4 U	4 U	4 U
BROMOETHANE	0.5 U	5 U	NA	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	5 U	NA	0.5 U	0.5 U	0.5 U
M & P-XYLENE	1 U	1.3	NA	2 U	1 U	1 U
O-XYLENE	0.5 U	0.5 U	NA	1 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW09IW-96B	78-GW09IW-96C	78-GW10-95C	78-GW10-95D	78-GW10-96A	78-GW10-96B
DATE SAMPLED	04/17/96	07/11/96	07/09/95	10/25/95	01/17/96	04/12/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
BROMOMETHANE	NA	0.5 U	NA	NA	NA	NA
VINYL CHLORIDE	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
METHYLENE CHLORIDE	4 U	0.5 U	0.5 U	5 U	5 U	4 U
ACETONE	NA	2 U	NA	NA	NA	NA
CARBON DISULFIDE	NA	2 U	NA	NA	NA	NA
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	NA	2	NA	NA	NA	NA
CHLOROFORM	1 U	0.5 U	1 U	1 U	2 U	1 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	2 U	NA	NA	NA	NA
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
BROMODICHLOROMETHANE	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
CIS-1,3-DICHLOROPROPENE	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
DIBROMOCHLOROMETHANE	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
BENZENE	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW09IW-96B	78-GW09IW-96C	78-GW10-95C	78-GW10-95D	78-GW10-96A	78-GW10-96B
DATE SAMPLED	04/17/96	07/11/96	07/09/95	10/25/95	01/17/96	04/12/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	NA	2 U	NA	NA	NA	NA
2-HEXANONE	NA	2 U	NA	NA	NA	NA
TETRACHLOROETHENE	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
TOLUENE	0.8	0.5 U	1 U	0.5 U	0.5 U	1
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	1 U	0.5 U	0.5 U	0.5 U
STYRENE	NA	0.5 U	NA	NA	NA	NA
XYLENE (TOTAL)	NA	0.5 U	NA	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	0.5 U	NA	NA	NA
1,2-DICHLOROBENZENE	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	NA	4 U	4 U	4 U	4 U
BROMOETHANE	5 U	NA	0.5 U	0.5 U	0.5 U	5 U
DICHLORODIFLUOROMETHANE	5 U	NA	0.5 U	0.5 U	0.5 U	5 U
M & P-XYLENE	1 U	NA	2 U	1 U	1 U	1 U
O-XYLENE	0.5 U	NA	1 U	0.5 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.5	NA	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	NA	0.5 U	0.5 U	1 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW10-96C	78-GW11-95C	78-GW11-95D	78-GW11-96A	78-GW11-96B	78-GW11-96C
DATE SAMPLED	07/16/96	07/10/95	10/25/95	01/17/96	04/12/96	07/15/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U
BROMOMETHANE	0.5 U	NA	NA	NA	NA	0.5 U
VINYL CHLORIDE	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
METHYLENE CHLORIDE	0.5 U	0.5 U	5 U	5 U	4 U	0.5 U
ACETONE	2 U	NA	NA	NA	NA	2 U
CARBON DISULFIDE	2 U	NA	NA	NA	NA	2 U
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	0.5 U	NA	NA	NA	NA	0.5 U
CHLOROFORM	0.5 U	1 U	1 U	2 U	1 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
2-BUTANONE	2 U	NA	NA	NA	NA	2 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
BROMODICHLOROMETHANE	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
CIS-1,3-DICHLOROPROPENE	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
DIBROMOCHLOROMETHANE	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
BENZENE	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW10-96C	78-GW11-95C	78-GW11-95D	78-GW11-96A	78-GW11-96B	78-GW11-96C
DATE SAMPLED	07/16/96	07/10/95	10/25/95	01/17/96	04/12/96	07/15/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	2 U	NA	NA	NA	NA	2 U
2-HEXANONE	2 U	NA	NA	NA	NA	2 U
TETRACHLOROETHENE	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
TOLUENE	0.5 U	1 U	0.5 U	0.5 U	1.1	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	1 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	NA	NA	NA	NA	0.5 U
XYLENE (TOTAL)	0.5 U	NA	NA	NA	NA	0.5 U
1,1-DICHLOROBENZENE	NA	0.5 U	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,3-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
1,4-DICHLOROBENZENE	NA	NA	0.5 U	0.5 U	0.5 U	NA
2-CHLOROETHYL VINYL ETHER	NA	4 U	4 U	4 U	4 U	NA
BROMOETHANE	NA	0.5 U	0.5 U	0.5 U	5 U	NA
DICHLORODIFLUOROMETHANE	NA	0.5 U	0.5 U	0.5 U	5 U	NA
M & P-XYLENE	NA	2 U	1 U	1 U	1.5	NA
O-XYLENE	NA	1 U	0.5 U	0.5 U	0.5 U	NA
TRANS-1,2-DICHLOROETHENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA
TRICHLOROFLUOROMETHANE	NA	0.5 U	0.5 U	1 U	0.5 U	NA

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW14-95C	78-GW14-95D	78-GW14-96A	78-GW14-96B	78-GW14-96C	78-GW15-96C
DATE SAMPLED	07/09/95	10/26/95	01/17/96	04/11/96	07/12/96	07/14/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	NA	NA	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
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	4 U	5 U	4 U	0.5 U	0.5 U
ACETONE	NA	NA	NA	NA	2 U	2 U
CARBON DISULFIDE	NA	NA	NA	NA	2 U	2 U
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	0.5 U	0.5 U
CHLOROFORM	1 U	1 U	2 U	1 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
2-BUTANONE	NA	NA	NA	NA	2 U	2 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
BROMODICHLOROMETHANE	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
CIS-1,3-DICHLOROPROPENE	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
DIBROMOCHLOROMETHANE	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
BENZENE	1.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW14-95C	78-GW14-95D	78-GW14-96A	78-GW14-96B	78-GW14-96C	78-GW15-96C
DATE SAMPLED	07/09/95	10/26/95	01/17/96	04/11/96	07/12/96	07/14/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	NA	NA	NA	NA	2 U	2 U
2-HEXANONE	NA	NA	NA	NA	2 U	2 U
TETRACHLOROETHENE	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
TOLUENE	1 U	0.5 U	0.5 U	0.7	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	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	NA	NA	NA	NA	0.5 U	0.5 U
XYLENE (TOTAL)	NA	NA	NA	NA	0.5 U	0.5 U
1,1-DICHLOROBENZENE	0.5 U	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,4-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	NA	NA
2-CHLOROETHYL VINYL ETHER	4 U	4 U	4 U	4 U	NA	NA
BROMOETHANE	0.5 U	0.5 U	0.5 U	5 U	NA	NA
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	5 U	NA	NA
M & P-XYLENE	2 U	1 U	1 U	1 U	NA	NA
O-XYLENE	1 U	0.5 U	0.5 U	0.5 U	NA	NA
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	1 U	0.5 U	NA	NA

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW17-95C	78-GW17-95D	78-GW17-96A	78-GW17-96B	78-GW17-96C	78-GW19-95C
DATE SAMPLED	07/12/95	10/26/95	01/17/96	04/10/96	07/15/96	07/10/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	NA	NA	0.5 U	NA
VINYL CHLORIDE	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
METHYLENE CHLORIDE	0.5 U	4 U	5 U	4 U	0.5 U	0.5 U
ACETONE	NA	NA	NA	NA	2 U	NA
CARBON DISULFIDE	NA	NA	NA	NA	2 U	NA
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	0.5 U	NA
CHLOROFORM	1 U	1 U	2 U	1 U	0.5 U	1 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	NA	NA	2 U	NA
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
BROMODICHLOROMETHANE	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
CIS-1,3-DICHLOROPROPENE	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	1.5
DIBROMOCHLOROMETHANE	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
BENZENE	1 U	0.5 U	0.5 U	1.5	0.5 U	1 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW17-95C	78-GW17-95D	78-GW17-96A	78-GW17-96B	78-GW17-96C	78-GW19-95C
DATE SAMPLED	07/12/95	10/26/95	01/17/96	04/10/96	07/15/96	07/10/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	NA	NA	NA	NA	2 U	NA
2-HEXANONE	NA	NA	NA	NA	2 U	NA
TETRACHLOROETHENE	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
TOLUENE	1 U	0.5 U	0.5 U	5.9	0.5 U	1 U
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	1 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U
STYRENE	NA	NA	NA	NA	0.5 U	NA
XYLENE (TOTAL)	NA	NA	NA	NA	0.5 U	NA
1,1-DICHLOROBENZENE	0.5 U	NA	NA	NA	NA	0.5 U
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
1,4-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	NA	NA
2-CHLOROETHYL VINYL ETHER	4 U	4 U	4 U	4 U	NA	4 U
BROMOETHANE	0.5 U	0.5 U	0.5 U	5 U	NA	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	0.5 U	5 U	NA	0.5 U
M & P-XYLENE	2 U	1 U	1 U	2.5	NA	2 U
O-XYLENE	1 U	0.5 U	0.5 U	1.1	NA	1 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	NA	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	1 U	0.5 U	NA	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW19-95D	78-GW19-96A	78-GW19-96B	78-GW19-96C	78-GW21-95C	78-GW21-95D
DATE SAMPLED	10/26/95	01/17/96	04/10/96	07/16/96	07/09/95	10/25/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	NA	0.5 U	NA	NA
VINYL CHLORIDE	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
METHYLENE CHLORIDE	4 U	5 U	4 U	0.5 U	0.5 U	5 U
ACETONE	NA	NA	NA	2 U	NA	NA
CARBON DISULFIDE	NA	NA	NA	2 U	NA	NA
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	0.5 U	NA	NA
CHLOROFORM	1 U	2 U	1 U	0.5 U	1 U	1 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	NA	2 U	NA	NA
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
BROMODICHLOROMETHANE	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
CIS-1,3-DICHLOROPROPENE	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
DIBROMOCHLOROMETHANE	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
BENZENE	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW19-95D	78-GW19-96A	78-GW19-96B	78-GW19-96C	78-GW21-95C	78-GW21-95D
DATE SAMPLED	10/26/95	01/17/96	04/10/96	07/16/96	07/09/95	10/25/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	NA	NA	NA	2 U	NA	NA
2-HEXANONE	NA	NA	NA	2 U	NA	NA
TETRACHLOROETHENE	0.8	0.7	0.5	0.8	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
TOLUENE	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1.4
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	1 U	0.5 U
STYRENE	NA	NA	NA	0.5 U	NA	NA
XYLENE (TOTAL)	NA	NA	NA	0.5 U	NA	NA
1,1-DICHLOROBENZENE	NA	NA	NA	NA	0.5 U	NA
1,2-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	0.5 U	NA	NA	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	4 U	4 U	NA	4 U	4 U
BROMOETHANE	0.5 U	0.5 U	5 U	NA	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	0.5 U	5 U	NA	0.5 U	0.5 U
M & P-XYLENE	1 U	1 U	1 U	NA	2 U	1 U
O-XYLENE	0.5 U	0.5 U	0.5 U	NA	1 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	NA	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	1 U	0.5 U	NA	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW21-96A	78-GW21-96B	78-GW21-96C	78-GW22A-95C	78-GW22A-95D	78-GW22A-96A
DATE SAMPLED	01/17/96	04/10/96	07/17/96	07/09/95	10/25/95	01/19/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	5 U	0.5 U	0.5 U	25 U	25 U
BROMOMETHANE	NA	NA	0.5 U	NA	NA	NA
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
METHYLENE CHLORIDE	5 U	4 U	0.5 U	0.5 U	250 U	250 U
ACETONE	NA	NA	2 U	NA	NA	NA
CARBON DISULFIDE	NA	NA	2 U	NA	NA	NA
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
1,2-DICHLOROETHENE (TOTAL)	NA	NA	0.5 U	NA	NA	NA
CHLOROFORM	2 U	1 U	0.5 U	1 U	50 U	340
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
2-BUTANONE	NA	NA	2 U	NA	NA	NA
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
BENZENE	0.5 U	0.5 U	0.5 U	1.2	25 U	25 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW21-96A	78-GW21-96B	78-GW21-96C	78-GW22A-95C	78-GW22A-95D	78-GW22A-96A
DATE SAMPLED	01/17/96	04/10/96	07/17/96	07/09/95	10/25/95	01/19/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
BROMOFORM	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
4-METHYL-2-PENTANONE	NA	NA	2 U	NA	NA	NA
2-HEXANONE	NA	NA	2 U	NA	NA	NA
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 u
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
TOLUENE	0.8	0.5 U	0.5 U	1 U	25 U	25
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	0.5 U	25 U	25 U
ETHYLBENZENE	0.5 U	0.5 U	0.5 U	1 U	25 U	25 U
STYRENE	NA	NA	0.5 U	NA	NA	NA
XYLENE (TOTAL)	NA	NA	0.5 U	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	NA	0.5 U	NA	NA
1,2-DICHLOROBENZENE	0.5 U	0.5 U	NA	0.5 U	25 U	25 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	NA	0.5 U	25 U	25 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	NA	NA	25 U	25 U
2-CHLOROETHYL VINYL ETHER	4 U	4 U	NA	4 U	200 U	100 U
BROMOETHANE	0.5 U	5 U	NA	0.5 U	25 U	25 U
DICHLORODIFLUOROMETHANE	0.5 U	5 U	NA	0.5 U	25 U	25 U
M & P-XYLENE	1 U	1 U	NA	2 U	50 U	50 U
O-XYLENE	0.5 U	0.5 U	NA	1 U	25 U	25 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	NA	0.5 U	25 U	25 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	NA	0.5 U	25 U	50 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW22A-96B	78-GW22A-96C	78-GW22B-95C	78-GW22B-95D	78-GW22B-96A	78-GW22B-96B
DATE SAMPLED	04/09/96	07/17/96	07/09/95	10/24/95	01/17/96	04/10/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	5 U	0.5 U	0.5 U	25 U	25 U	5 U
BROMOMETHANE	NA	0.5 U	NA	NA	NA	NA
VINYL CHLORIDE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
CHLOROETHANE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
METHYLENE CHLORIDE	4 U	0.5 U	0.5 U	250 U	250	4 U
ACETONE	NA	2 U	NA	NA	NA	NA
CARBON DISULFIDE	NA	2 U	NA	NA	NA	NA
1,1-DICHLOROETHENE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
1,1-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	NA	0.5 U	NA	NA	NA	NA
CHLOROFORM	1 U	0.5 U	1 U	50 U	50 U	1 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	8.5	25 U	25 U	0.5 U
2-BUTANONE	NA	2 U	NA	NA	NA	NA
1,1,1-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	0.5 U	9.6	25 U	25 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
TRICHLOROETHENE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
DIBROMOCHLOROMETHANE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
BENZENE	0.5 U	0.5 U	17700	9590	11800	4900

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW22A-96B	78-GW22A-96C	78-GW22B-95C	78-GW22B-95D	78-GW22B-96A	78-GW22B-96B
DATE SAMPLED	04/09/96	07/17/96	07/09/95	10/24/95	01/17/96	04/10/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
BROMOFORM	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
4-METHYL-2-PENTANONE	NA	2 U	NA	NA	NA	NA
2-HEXANONE	NA	2 U	NA	NA	NA	NA
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
TOLUENE	0.5 U	0.5 U	14800	27300	28100	9100
CHLOROBENZENE	0.5 U	0.5 U	0.5 U	25 U	25 U	0.5 U
ETHYLBENZENE	0.5	0.5 U	1 U	2490	4230	800
STYRENE	NA	0.5 U	NA	NA	NA	NA
XYLENE (TOTAL)	NA	0.5 U	NA	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	0.5 U	NA	NA	NA
1,2-DICHLOROBENZENE	0.5 U	NA	0.5 U	25 U	25 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	NA	0.5 U	25 U	25 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	NA	NA	25 U	25 U	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	NA	4 U	200 U	100 U	4 U
BROMOETHANE	5 U	NA	0.5 U	25 U	25 U	5 U
DICHLORODIFLUOROMETHANE	5 U	NA	0.5 U	25 U	25 U	5 U
M & P-XYLENE	1 U	NA	4570	8730	20200	3500
O-XYLENE	0.5 U	NA	2250	2480	3590	1700
TRANS-1,2-DICHLOROETHENE	0.5 U	NA	0.5 U	25 U	25 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	NA	0.5 U	25 U	50 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW23-95C	78-GW23-95D	78-GW23-96A	78-GW23-96B	78-GW23-96C	78-GW24-95C
DATE SAMPLED	07/12/95	10/25/95	01/17/96	04/09/96	07/14/96	07/09/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	1.3 U	25 U	500 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	NA	NA	0.5 U	NA
VINYL CHLORIDE	54	80.9	180	360	NA	0.5 U
CHLOROETHANE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
METHYLENE CHLORIDE	0.5 U	12.5 U	250	400 U	0.5 U	0.5 U
ACETONE	NA	NA	NA	NA	2 U	NA
CARBON DISULFIDE	NA	NA	NA	NA	2 U	NA
1,1-DICHLOROETHENE	0.5 U	4.2	219	50 U	5	0.5 U
1,1-DICHLOROETHANE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA
CHLOROFORM	48.8	2.5 U	276	100 U	0.5 U	1 U
1,2-DICHLOROETHANE	10.6	1.3 U	25 U	50 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	NA	NA	2 U	NA
1,1,1-TRICHLOROETHANE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
TRICHLOROETHENE	39.4	53.9	72	50 U	NA	6.4
DIBROMOCHLOROMETHANE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
BENZENE	30	23	25 U	16	17	1.4

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW23-95C	78-GW23-95D	78-GW23-96A	78-GW23-96B	78-GW23-96C	78-GW24-95C
DATE SAMPLED	07/12/95	10/25/95	01/17/96	04/09/96	07/14/96	07/09/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
BROMOFORM	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
4-METHYL-2-PENTANONE	NA	NA	NA	NA	2 U	NA
2-HEXANONE	NA	NA	NA	NA	2 U	NA
TETRACHLOROETHENE	0.5 U	1.3 U	25 u	50 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
TOLUENE	1.6	5.4	25 U	3.5	4	1 U
CHLOROBENZENE	0.5 U	1.3 U	25 U	50 U	0.5 U	0.5 U
ETHYLBENZENE	7.3	35.5	25 U	24	9	1 U
STYRENE	NA	NA	NA	NA	0.5 U	NA
XYLENE (TOTAL)	NA	NA	NA	NA	57	NA
1,1-DICHLOROBENZENE	0.5 U	NA	NA	NA	NA	0.5 U
1,2-DICHLOROBENZENE	0.5 U	1.3 U	25 U	50 U	NA	0.5 U
1,3-DICHLOROBENZENE	0.5 U	1.3 U	25 U	50 U	NA	0.5 U
1,4-DICHLOROBENZENE	NA	1.3 U	25 U	50 U	NA	NA
2-CHLOROETHYL VINYL ETHER	4 U	10 U	100 U	400 U	NA	4 U
BROMOETHANE	0.5 U	1.3 U	25 U	500 U	NA	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	1.3 U	25 U	500 U	NA	0.5 U
M & P-XYLENE	21.5	84.5	60	20	NA	2 U
O-XYLENE	20.5	38.1	47	22	NA	1 U
TRANS-1,2-DICHLOROETHENE	248	18.7	25 U	130	NA	4.9
TRICHLOROFLUOROMETHANE	0.5 U	1.3 U	50 U	50 U	NA	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW24-95D	78-GW24-96A	78-GW24-96B	78-GW24-96C	78-GW24DW-95C	78-GW24DW-95D
DATE SAMPLED	10/25/95	01/21/96	04/09/96	07/16/96	07/12/95	11/05/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	1.3 U	1.3 U	5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	NA	0.5 U	NA	NA
VINYL CHLORIDE	11.1	5.7	3.6	10	0.5 U	0.5 U
CHLOROETHANE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	12.5 U	12.5 U	4 U	0.5 U	0.5 U	3 U
ACETONE	NA	NA	NA	2 U	NA	NA
CARBON DISULFIDE	NA	NA	NA	2 U	NA	NA
1,1-DICHLOROETHENE	1.3 U	1.3 U	0.5 U	1	0.5 U	0.5 U
1,1-DICHLOROETHANE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA
CHLOROFORM	2.5 U	5 U	1 U	0.5 U	1 U	1 U
1,2-DICHLOROETHANE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	NA	2 U	NA	NA
1,1,1-TRICHLOROETHANE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,3-DICHLOROPROPENE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	21.1	19.2	34	NA	0.5 U	0.5 U
DIBROMOCHLOROMETHANE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
BENZENE	1.3 U	1.3 U	0.5 U	0.6	1 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW24-95D	78-GW24-96A	78-GW24-96B	78-GW24-96C	78-GW24DW-95C	78-GW24DW-95D
DATE SAMPLED	10/25/95	01/21/96	04/09/96	07/16/96	07/12/95	11/05/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
4-METHYL-2-PENTANONE	NA	NA	NA	2 U	NA	NA
2-HEXANONE	NA	NA	NA	2 U	NA	NA
TETRACHLOROETHENE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-TETRACHLOROETHANE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	1.3 U	1.5 U	0.5 U	0.7	1 U	0.5 U
CHLOROBENZENE	1.3 U	1.3 U	0.5 U	0.5 U	0.5 U	0.5 U
ETHYLBENZENE	1.3 U	1.3 U	0.5 U	0.5 U	1 U	0.5 U
STYRENE	NA	NA	NA	0.5 U	NA	NA
XYLENE (TOTAL)	NA	NA	NA	0.5 U	NA	NA
1,1-DICHLOROBENZENE	NA	NA	NA	NA	0.5 U	NA
1,2-DICHLOROBENZENE	1.3 U	1.3 U	0.5 U	NA	0.5 U	0.5 U
1,3-DICHLOROBENZENE	1.3 U	1.3 U	0.5 U	NA	0.5 U	0.5 U
1,4-DICHLOROBENZENE	1.3 U	1.3 U	0.5 U	NA	NA	0.5 U
2-CHLOROETHYL VINYL ETHER	10 U	10 U	4 U	NA	4 U	4 U
BROMOETHANE	1.3 U	1.3 U	9.3	NA	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	1.3 U	1.3 U	5 U	NA	0.5 U	0.5 U
M & P-XYLENE	2.5 U	2.5 U	1 U	NA	2 U	1 U
O-XYLENE	1.3 U	1.3 U	0.5 U	NA	1 U	0.5 U
TRANS-1,2-DICHLOROETHENE	12.8	8.5	8.1	NA	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	1.3 U	1.3 U	0.5 U	NA	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW24DW-96A	78-GW24DW-96B	78-GW24DW-96C	78-GW24IW-95C	78-GW24IW-95D	78-GW24IW-96A
DATE SAMPLED	01/21/96	04/16/96	07/15/96	07/12/95	11/05/95	01/21/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	NA	NA	0.5 U	NA	NA	NA
VINYL CHLORIDE	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
METHYLENE CHLORIDE	5 U	4 U	0.5 U	0.5 U	3 U	5 U
ACETONE	NA	NA	2 U	NA	NA	NA
CARBON DISULFIDE	NA	NA	2 U	NA	NA	NA
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	NA	NA	0.5 U	NA	NA	NA
CHLOROFORM	2 U	1 U	0.5 U	1.1	1 U	2 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	NA	2 U	NA	NA	NA
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
BROMODICHLOROMETHANE	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
CIS-1,3-DICHLOROPROPENE	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
DIBROMOCHLOROMETHANE	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
BENZENE	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW24DW-96A	78-GW24DW-96B	78-GW24DW-96C	78-GW24IW-95C	78-GW24IW-95D	78-GW24IW-96A
DATE SAMPLED	01/21/96	04/16/96	07/15/96	07/12/95	11/05/95	01/21/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	NA	NA	2 U	NA	NA	NA
2-HEXANONE	NA	NA	2 U	NA	NA	NA
TETRACHLOROETHENE	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
TOLUENE	0.6 U	0.8	0.5 U	2.1	0.5 U	0.6 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	1 U	0.5 U	0.5 U
STYRENE	NA	NA	0.5 U	NA	NA	NA
XYLENE (TOTAL)	NA	NA	0.5 U	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	NA	0.5 U	NA	NA
1,2-DICHLOROBENZENE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	0.5 U	NA	NA	0.5 U	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	4 U	NA	4 U	4 U	4 U
BROMOETHANE	0.5 U	5 U	NA	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	0.5 U	5 U	NA	0.5 U	0.5 U	0.5 U
M & P-XYLENE	1 U	1	NA	2 U	1 U	1 U
O-XYLENE	0.5 U	0.5 U	NA	1 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	0.5 U	NA	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW24IW-96B	78-GW24IW-96C	78-GW25-95C	78-GW25-95D	78-GW25-96A	78-GW25-96B
DATE SAMPLED	04/16/96	07/17/96	07/09/95	10/24/95	01/17/96	04/09/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES						
CHLOROMETHANE	5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U
BROMOMETHANE	NA	0.5 U	NA	NA	NA	NA
VINYL CHLORIDE	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
METHYLENE CHLORIDE	4 U	0.5 U	0.5 U	5 U	5 U	4 U
ACETONE	NA	2 U	NA	NA	NA	NA
CARBON DISULFIDE	NA	2 U	NA	NA	NA	NA
1,1-DICHLOROETHENE	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
1,2-DICHLOROETHENE (TOTAL)	NA	0.5 U	NA	NA	NA	NA
CHLOROFORM	1 U	0.5 U	1 U	1 U	2 U	1 U
1,2-DICHLOROETHANE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	NA	2 U	NA	NA	NA	NA
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
BROMODICHLOROMETHANE	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
CIS-1,3-DICHLOROPROPENE	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
DIBROMOCHLOROMETHANE	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
BENZENE	4.8	0.5 U	1 U	1.4	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW24IW-96B	78-GW24IW-96C	78-GW25-95C	78-GW25-95D	78-GW25-96A	78-GW25-96B
DATE SAMPLED	04/16/96	07/17/96	07/09/95	10/24/95	01/17/96	04/09/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)						
TRANS-1,3-DICHLOROPROPENE	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
4-METHYL-2-PENTANONE	NA	2 U	NA	NA	NA	NA
2-HEXANONE	NA	2 U	NA	NA	NA	NA
TETRACHLOROETHENE	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
TOLUENE	15	0.5 U	1 U	6	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	3.5	0.5 U	1 U	1.4	0.5 U	0.5 U
STYRENE	NA	0.5 U	NA	NA	NA	NA
XYLENE (TOTAL)	NA	0.5 U	NA	NA	NA	NA
1,1-DICHLOROBENZENE	NA	NA	0.5 U	NA	NA	NA
1,2-DICHLOROBENZENE	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	0.5 U	NA	NA	0.5 U	0.5 U	0.5 U
2-CHLOROETHYL VINYL ETHER	4 U	NA	4 U	4 U	4 U	4 U
BROMOETHANE	5 U	NA	0.5 U	0.5 U	0.5 U	5 U
DICHLORODIFLUOROMETHANE	5 U	NA	0.5 U	0.5 U	0.5 U	5 U
M & P-XYLENE	11	NA	2 U	4.3	1 U	1 U
O-XYLENE	6.2	NA	1 U	1.5	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	0.5 U	NA	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROFLUOROMETHANE	0.5 U	NA	0.5 U	0.5 U	1 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW25-96C	78-GW31DW-95C	78-GW31DW-95D	78-GW31DW-96A	78-GW31DW-96B	78-GW31DW-96C	78-GW39-96C
DATE SAMPLED	07/16/96	07/12/95	11/06/95	01/20/96	04/17/96	07/11/96	07/18/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES							
CHLOROMETHANE	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
BROMOMETHANE	0.5 U	NA	NA	NA	NA	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
CHLOROETHANE	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	3 U	5 U	4 U	0.5 U	0.5 U
ACETONE	2 U	NA	NA	NA	NA	2 U	2 U
CARBON DISULFIDE	2 U	NA	NA	NA	NA	2 U	2 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
1,1-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	NA	NA	NA	NA	0.5 U	0.5 U
CHLOROFORM	0.5 U	1 U	1 U	2 U	1 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
2-BUTANONE	2 U	NA	NA	NA	NA	2 U	2 U
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
CARBON TETRACHLORIDE	0.5 U	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	0.5 U
1,2-DICHLOROPROPANE	0.5 U	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	0.5 U
TRICHLOROETHENE	0.5 U	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	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	0.5 U
BENZENE	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	78-GW25-96C	78-GW31DW-95C	78-GW31DW-95D	78-GW31DW-96A	78-GW31DW-96B	78-GW31DW-96C	78-GW39-96C
DATE SAMPLED	07/16/96	07/12/95	11/06/95	01/20/96	04/17/96	07/11/96	07/18/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
VOLATILES (cont)							
TRANS-1,3-DICHLOROPROPENE	0.5 U	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	0.5 U
4-METHYL-2-PENTANONE	2 U	NA	NA	NA	NA	2 U	2 U
2-HEXANONE	2 U	NA	NA	NA	NA	2 U	2 U
TETRACHLOROETHENE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1
1,1,2,2-TETRACHLOROETHANE	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	1 U	0.5 U	0.6 U	1.1	0.5 U	1
CHLOROBENZENE	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	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	0.5 U	NA	NA	NA	NA	0.5 U	0.5 U
XYLENE (TOTAL)	0.5 U	NA	NA	NA	NA	0.5 U	0.7
1,1-DICHLOROBENZENE	NA	0.5 U	NA	NA	NA	NA	NA
1,2-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,3-DICHLOROBENZENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
1,4-DICHLOROBENZENE	NA	NA	0.5 U	0.5 U	0.5 U	NA	NA
2-CHLOROETHYL VINYL ETHER	NA	4 U	4 U	4 U	4 U	NA	NA
BROMOETHANE	NA	0.5 U	0.5 U	0.5 U	5 U	NA	NA
DICHLORODIFLUOROMETHANE	NA	0.5 U	0.5 U	0.5 U	5 U	NA	NA
M & P-XYLENE	NA	2 U	1 U	1 U	1 U	NA	NA
O-XYLENE	NA	1 U	0.5 U	0.5 U	0.5 U	NA	NA
TRANS-1,2-DICHLOROETHENE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA
TRICHLOROFLUOROMETHANE	NA	0.5 U	0.5 U	0.5 U	0.5 U	NA	NA

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	24-GW08-96C	24-GW09-96C	24-GW10-96C	78-EXW01-95C	78-EXW01-95D	78-EXW01-96A	78-EXW01-96B
DATE SAMPLED	07/10/96	07/11/96	07/11/96	07/13/95	10/29/95	01/18/96	04/10/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	2.6 U	2.6 U	2.6 U	10 U	0.5 U	0.5 U	0.3 U
ARSENIC, TOTAL	1.2 U	1.2 U	1.2 U	1	1.8	1.4	0.9
BERYLLIUM, TOTAL	0.7 U	0.7 U	0.7 U	0.5 U	0.5 U	0.5 U	0.3
CHROMIUM, TOTAL	3.3 U	3.3 U	3.3 U	5 U	5 U	5 U	1 U
IRON, TOTAL	184	313	25.8	480	794	1260	610
LEAD, TOTAL	1.2 U	1.3	1.5	0.5 U	0.8	0.5 U	0.3
MANGANESE, TOTAL	3.7	76.2	1.6 U	5 U	5 U	8	2.5
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.2 U	0.2 U	0.2 U	0.02 U
NICKEL, TOTAL	8.7 U	8.7 U	8.7 U	4 U	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-EXW01-96C	78-EXW02-95C	78-EXW02-95D	78-EXW02-96A	78-EXW02-96B	78-EXW02-96C	78-EXW03-95C
DATE SAMPLED	07/17/96	10/13/95	10/29/95	01/18/96	04/10/96	07/10/96	07/09/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	2.4 U	10 U	0.5 U	0.5 U	0.3 U	2.6 U	10 U
ARSENIC, TOTAL	7.7	0.5 U	0.5 U	0.5 U	0.3	3.1	0.5 U
BERYLLIUM, TOTAL	0.7 U	0.5 U	0.5 U	0.5 U	0.3	0.7 U	0.5 U
CHROMIUM, TOTAL	3.3 U	5 U	5 U	5 U	1 U	3.3 U	5 U
IRON, TOTAL	8360	210	464	900	320	3610	1200
LEAD, TOTAL	1.2 U	0.5 U	0.5 U	0.5 U	0.1	1.2 U	0.5 U
MANGANESE, TOTAL	68	5 U	5 U	5 U	1 U	8.6	9
MERCURY, TOTAL	0.1 U	0.2 U	0.2 U	0.2 U	0.02 U	0.1 U	0.2 U
NICKEL, TOTAL	8.7 U	4 U	4 U	4 U	4 U	8.7 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-EXW03-95D	78-EXW03-96A	78-EXW03-96B	78-EXW03-96C	78-EXW04-95C	78-EXW04-95D	78-EXW04-96A
DATE SAMPLED	10/28/95	01/18/96	04/16/96	07/18/96	10/13/95	10/27/95	01/18/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.5 U	0.5 U	0.3 U	2.4 U	10 U	0.5 U	0.5 U
ARSENIC, TOTAL	0.5 U	0.5 U	0.1 U	1.4 U	0.5 U	0.5 U	0.5 U
BERYLLIUM, TOTAL	0.5 U	0.5 U	0.4	0.7 U	0.5 U	0.5 U	0.5 U
CHROMIUM, TOTAL	5 U	5 U	1 U	3.3 U	5 U	5 U	5 U
IRON, TOTAL	618	1690	2000	5310	1500	1960	1730
LEAD, TOTAL	0.5 U	0.5 U	0.1 U	2.3	0.5 U	0.5 U	0.5 U
MANGANESE, TOTAL	8	7	38	34.7	28	23	23
MERCURY, TOTAL	0.2 U	0.2 U	0.02 U	0.1 U	0.2 U	0.2 U	0.2 U
NICKEL, TOTAL	4 U	4 U	4 U	8.7 U	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-EXW04-96B	78-EXW04-96C	78-EXW05-95C	78-EXW05-95D	78-EXW05-96A	78-EXW05-96B	78-EXW06-95C
DATE SAMPLED	04/11/96	07/17/96	10/14/95	10/26/95	01/19/96	04/09/96	10/13/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.3 U	2.4 U	10 U	0.5 U	0.5 U	0.3 U	10 U
ARSENIC, TOTAL	0.1 U	1.4 U	0.5 U	0.5 U	0.6	0.1 U	0.5 U
BERYLLIUM, TOTAL	0.2	1.1	0.5 U	0.5 U	0.5 U	0.5	0.5 U
CHROMIUM, TOTAL	1 U	3.3 U	5 U	5 U	5 U	1 U	5 U
IRON, TOTAL	1600	16000	40	12	2090	8.2	4300
LEAD, TOTAL	0.1 U	1.2 U	0.6	1.5 U	1	0.4	0.5 U
MANGANESE, TOTAL	21	159	5 U	5 U	111	1 U	12
MERCURY, TOTAL	0.02 U	0.1 U	0.2 U	0.2 U	0.2 U	0.02 U	0.2 U
NICKEL, TOTAL	4 U	8.7 U	4 U	4 U	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-EXW06-95D	78-EXW06-96A	78-EXW06-96B	78-EXW07-95C	78-EXW07-95D	78-EXW07-96A	78-EXW07-96B
DATE SAMPLED	10/26/95	01/19/96	04/09/96	10/13/95	10/29/95	01/19/96	04/09/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.5 U	0.5 U	0.3 U	10 U	0.5 U	0.5 U	0.3 U
ARSENIC, TOTAL	0.5 U	0.5 U	0.1 U	0.5 U	0.5 U	0.9 U	1.3
BERYLLIUM, TOTAL	0.5 U	0.5 U	0.6	0.5 U	0.5 U	0.5 U	0.6
CHROMIUM, TOTAL	5 U	5 U	1.3	5 U	5 U	5 U	1.1
IRON, TOTAL	1260	5040	4400	290	349	840	4300
LEAD, TOTAL	0.5	0.5 U	0.3	0.5 U	3.8	0.5 U	1.1
MANGANESE, TOTAL	6	8	8.1	13	6	10	30
MERCURY, TOTAL	0.2 U	0.2 U	0.02 U	0.2 U	0.2 U	0.2 U	0.02 U
NICKEL, TOTAL	4 U	4 U	4 U	4 U	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-EXW08-95C	78-EXW08-95D	78-EXW08-96A	78-EXW08-96B	78-EXW09-95C	78-EXW09-95D	78-EXW09-96A
DATE SAMPLED	10/14/95	10/26/95	01/19/96	04/09/96	07/10/95	10/26/95	01/19/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	10 U	0.5 U	0.5 U	0.3 U	10 U	0.5 U	0.5 U
ARSENIC, TOTAL	0.5 U	0.5 U	0.7	0.5	0.7	2	4.2
BERYLLIUM, TOTAL	0.5 U	0.5 U	0.5 U	0.6	0.5 U	0.5 U	0.5 U
CHROMIUM, TOTAL	5 U	5 U	8	2.4	5 U	5 U	5 U
IRON, TOTAL	60	258 U	5250	13000	1600	3560 U	14200
LEAD, TOTAL	0.6	0.5 U	0.5 U	0.3	0.5 U	0.5 U	0.5 U
MANGANESE, TOTAL	5 U	8 U	11	61	7	5 U	9
MERCURY, TOTAL	0.2 U	0.2 U	0.2 U	0.02 U	0.2 U	0.2 U	0.2 U
NICKEL, TOTAL	4 U	4 U	4 U	4.1	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-EXW09-96B	78-EXW09-96C	78-EXW10-95C	78-EXW10-95D	78-EXW10-96A	78-EXW10-96B	78-EXW11-95C
DATE SAMPLED	04/17/96	07/18/96	10/13/95	10/25/95	01/17/96	04/09/96	10/13/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.3 U	2.4 U	10 U	0.5 U	0.5 U	0.3 U	10 U
ARSENIC, TOTAL	1.2	2.4	0.5 U	0.5 U	0.5 U	0.2	1.9
BERYLLIUM, TOTAL	0.2	0.7 U	0.5 U	0.5 U	0.5 U	0.4	0.5 U
CHROMIUM, TOTAL	1.2	3.5	5 U	5 U	5 U	1 U	5 U
IRON, TOTAL	4300	8300	370	954 U	1720	660	4100
LEAD, TOTAL	0.1	1.2 U	0.5 U	0.5 U	0.9	0.6	0.5 U
MANGANESE, TOTAL	12	45.8	5 U	5	5	4	9
MERCURY, TOTAL	0.02 U	0.1 U	0.2 U	0.2 U	0.2 U	0.02 U	0.2 U
NICKEL, TOTAL	4 U	8.7 U	4 U	4 U	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-EXW11-95D	78-EXW11-96A	78-EXW11-96B	78-GW01-95C	78-GW01-95D	78-GW01-96A	78-GW01-96B
DATE SAMPLED	10/25/95	01/17/96	04/09/96	07/10/95	10/25/95	01/18/96	04/11/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.5 U	0.5 U	0.3 U	10 U	0.5 U	0.5 U	0.3 U
ARSENIC, TOTAL	0.5 U	2.3	0.4	8.8	0.5 U	1.4	1
BERYLLIUM, TOTAL	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.2 U
CHROMIUM, TOTAL	5 U	5 U	1.3	5 U	5 U	5 U	1 U
IRON, TOTAL	141 U	7270	6700	43000	4320	9650	6600
LEAD, TOTAL	0.5 U	0.5 U	0.5	0.5	0.5 U	0.5 U	0.1 U
MANGANESE, TOTAL	5 U	7	11	8	6	5 U	5.3
MERCURY, TOTAL	0.2 U	0.2 U	0.02 U	0.3	0.2 U	0.2 U	0.02 U
NICKEL, TOTAL	4 U	4 U	4 U	4 U	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW01-96C	78-GW04-95C	78-GW04-95D	78-GW04-96A	78-GW04-96B	78-GW04-96C	78-GW05-95C
DATE SAMPLED	07/17/96	07/10/95	10/25/95	01/17/96	04/12/96	07/15/96	07/10/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	2.4 U	10 U	1.6	0.5 U	0.3 U	6.4	10 U
ARSENIC, TOTAL	1.4 U	0.5 U	0.5 U	0.5 U	0.8	1.4 U	0.5 U
BERYLLIUM, TOTAL	0.7 U	0.5 U	0.5 U	0.5 U	3.1	0.7 U	0.5 U
CHROMIUM, TOTAL	3.3 U	5 U	5 U	5 U	11	5.3	5 U
IRON, TOTAL	35300	1200	1820	1130	6900	3550	20
LEAD, TOTAL	1.2 U	0.6	1.2	0.6	0.1 U	2.7	0.5 U
MANGANESE, TOTAL	49.5	5	5 U	5 U	30	24.7	5
MERCURY, TOTAL	0.1 U	0.2 U	0.2 U	0.2 U	0.02 U	0.1 U	0.2 U
NICKEL, TOTAL	8.7 U	4 U	4 U	4 U	4.5	8.7 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW05-95D	78-GW05-96A	78-GW05-96B	78-GW05-96C	78-GW08-95C	78-GW08-95D	78-GW08-96A
DATE SAMPLED	10/25/95	01/17/96	04/11/96	07/17/96	07/09/95	10/25/95	01/17/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.5 U	0.5 U	0.3 U	2.4 U	10 U	0.5 U	0.5 U
ARSENIC, TOTAL	0.5 U	0.5 U	0.1	1.4 U	0.5 U	0.5 U	0.5 U
BERYLLIUM, TOTAL	0.5 U	0.5 U	0.2	0.7 U	0.5 U	0.5 U	0.5 U
CHROMIUM, TOTAL	5 U	5 U	1 U	4.4	5 U	5 U	5 U
IRON, TOTAL	124	2600	120	146	40	148	98
LEAD, TOTAL	0.5 U	0.5 U	0.9	1.2 U	0.5 U	0.5 U	0.5 U
MANGANESE, TOTAL	9	8	6.1	55.2	5	5 U	5 U
MERCURY, TOTAL	0.2 U	0.2 U	0.02 U	0.1 U	0.2 U	0.2 U	0.2 U
NICKEL, TOTAL	4 U	4 U	4 U	8.7 U	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW08-96B	78-GW08-96C	78-GW09-95C	78-GW09-95D	78-GW09-96A	78-GW09-96B	78-GW09-96C
DATE SAMPLED	04/11/96	07/14/96	07/10/95	10/25/95	01/18/96	04/11/96	07/11/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.3 U	2.6 U	10 U	0.5 U	0.5 U	0.3 U	2.6 U
ARSENIC, TOTAL	0.2	1.4 U	0.5 U	0.5 U	0.5 U	0.1 U	1.2 U
BERYLLIUM, TOTAL	0.2 U	0.7 U	0.5 U	0.5 U	0.5 U	0.2 U	0.7 U
CHROMIUM, TOTAL	1.3	3.3 U	5 U	5 U	5 U	1 U	3.3 U
IRON, TOTAL	230	482	120	128	70	20	44.2
LEAD, TOTAL	0.6	1.5	0.5 U	0.5 U	0.5 U	0.1 U	16.7
MANGANESE, TOTAL	1.7	6	5 U	5 U	5 U	1 U	3.9
MERCURY, TOTAL	0.02 U	0.1 U	0.2 U	0.2 U	0.2 U	0.02 U	0.1 U
NICKEL, TOTAL	4 U	8.7 U	4 U	4 U	5	4 U	8.7 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW09DW-95C	78-GW09DW-95D	78-GW09DW-96A	78-GW09DW-96B	78-GW09DW-96C	78-GW09IW-95C	78-GW09IW-95D
DATE SAMPLED	07/12/95	11/06/95	01/21/96	04/17/96	07/15/96	07/12/95	11/06/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	10 U	0.5 U	0.5 U	0.3 U	2.6 U	10 U	0.5 U
ARSENIC, TOTAL	0.5 U	0.5 U	0.5 U	0.1 U	1.4 U	0.5 U	0.5 U
BERYLLIUM, TOTAL	0.5 U	0.5 U	0.5 U	0.2 U	0.7 U	0.5 U	0.5 U
CHROMIUM, TOTAL	5 U	5 U	5 U	1 U	3.3 U	5 U	5 U
IRON, TOTAL	40	15	10 U	5.6	9.2	50	43
LEAD, TOTAL	0.5 U	0.5 U	0.5 U	0.2	4.6	0.5 U	0.5 U
MANGANESE, TOTAL	5 U	5 U	5 U	1.1	1.6 U	8	6
MERCURY, TOTAL		0.2 U	0.2 U	0.02 U	0.1 U	0.2 U	0.2 U
NICKEL, TOTAL	4 U	4 U	6	4 U	8.7 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW09IW-96A	78-GW09IW-96B	78-GW09IW-96C	78-GW10-95C	78-GW10-95D	78-GW10-96A	78-GW10-96B
DATE SAMPLED	01/20/96	04/17/96	07/11/96	07/09/95	10/25/95	01/17/96	04/12/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.5 U	0.3 U	2.6 U	10 U	0.5 U	0.5 U	0.3 U
ARSENIC, TOTAL	0.5 U	0.1 U	1.2 U	0.5 U	0.5 U	0.5 U	0.2
BERYLLIUM, TOTAL	0.5 U	0.3	0.7 U	0.5 U	0.5 U	0.5 U	0.2 U
CHROMIUM, TOTAL	5 U	1 U	3.3 U	5 U	5 U	5 U	1.2
IRON, TOTAL	40	73	508	330	184	28	81
LEAD, TOTAL	0.5 U	0.1 U	2.2	1.2	0.5 U	0.5 U	1
MANGANESE, TOTAL	10	7.2	23.2	5 U	5 U	5 U	2.7
MERCURY, TOTAL	0.2 U	0.02 U	0.1 U		0.2 U	0.2 U	0.02 U
NICKEL, TOTAL	4 U	4 U	8.7 U	4 U	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW10-96C	78-GW11-95C	78-GW11-95D	78-GW11-96A	78-GW11-96B	78-GW11-96C	78-GW14-95C
DATE SAMPLED	07/16/96	07/10/95	10/25/95	01/17/96	04/12/96	07/15/96	07/09/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	2.6 U	10 U	0.5 U	0.5 U	0.3 U	2.6 U	10 U
ARSENIC, TOTAL	1.4 U	0.5 U	0.6	0.5 U	0.2	1.4 U	0.5 U
BERYLLIUM, TOTAL	0.7 U	0.5 U	0.5 U	0.5 U	0.2 U	0.7 U	0.5 U
CHROMIUM, TOTAL	3.3 U	5 U	5 U	5 U	2.5	3.3 U	5 U
IRON, TOTAL	156	160	1580	46	630	1130	460
LEAD, TOTAL	1.2 U	0.5 U	0.5 U	0.5 U	3.2	1.2 U	0.7
MANGANESE, TOTAL	1.8	5 U	10	5 U	1.5	4	5 U
MERCURY, TOTAL	0.1 U		0.2 U	0.2 U	0.02 U	0.1 U	0.2 U
NICKEL, TOTAL	8.7 U	4 U	4 U	4 U	4 U	8.7 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW14-95D	78-GW14-96A	78-GW14-96B	78-GW14-96C	78-GW15-96C
DATE SAMPLED	10/26/95	01/17/96	04/11/96	07/12/96	07/14/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS					
ANTIMONY, TOTAL	0.5 U	0.5 U	0.3 U	2.6 U	2.6 U
ARSENIC, TOTAL	0.5 U	0.5	0.2	1.2 U	1.4 U
BERYLLIUM, TOTAL	0.5 U	0.5 U	0.2 U	0.7 U	0.7 U
CHROMIUM, TOTAL	5 U	5 U	1.4	3.3 U	3.3 U
IRON, TOTAL	694	702	650	5380	54.9
LEAD, TOTAL	1.2	0.5 U	0.5	2.5	1.2 U
MANGANESE, TOTAL	5 U	5 U	3.3	24.3	4.2
MERCURY, TOTAL	0.2 U	0.2 U	0.02 U	0.1 U	0.1 U
NICKEL, TOTAL	4 U	4 U	4 U	8.7 U	8.7 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW17-95C	78-GW17-95D	78-GW17-96A	78-GW17-96B	78-GW17-96C	78-GW19-95C	78-GW19-95D	78-GW19-96A
DATE SAMPLED	07/12/95	10/26/95	01/17/96	04/10/96	07/15/96	07/10/95	10/26/95	01/17/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS								
ANTIMONY, TOTAL	10 U	0.5 U	0.5 U	0.3 U	2.6 U	10 U	0.5 U	0.5 U
ARSENIC, TOTAL	0.5 U	0.5 U	0.5 U	0.1 U	1.4 U	8.4	0.5 U	0.5 U
BERYLLIUM, TOTAL	0.5 U	0.5 U	0.5 U	0.4	0.7 U	0.5 U	0.5 U	0.5 U
CHROMIUM, TOTAL	5 U	5 U	5 U	1.1	3.3 U	5 U	5 U	5 U
IRON, TOTAL	30	25	20	130	76.3	4100	1210	591
LEAD, TOTAL	0.5 U	0.5 U	0.6	0.4	1.2 U	1.9	1.1	0.5 U
MANGANESE, TOTAL	5 U	5 U	5 U	1 U	1.6 U	6	5 U	5 U
MERCURY, TOTAL	0.2 U	0.2 U	0.2 U	0.02 U	0.1 U	0.2 U	0.2 U	0.2 U
NICKEL, TOTAL	4 U	4 U	4 U	4 U	8.7 U	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW19-96B	78-GW19-96C	78-GW21-95C	78-GW21-95D	78-GW21-96A	78-GW21-96B	78-GW21-96C
DATE SAMPLED	04/10/96	07/16/96	07/09/95	10/24/95	01/17/96	04/10/96	07/17/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.3 U	2.6 U	10 U	0.5 U	0.5 U	0.3 U	2.4 U
ARSENIC, TOTAL	0.1 U	1.4 U	0.5 U	0.5 U	0.5 U	0.1	1.4 U
BERYLLIUM, TOTAL	0.3	0.7 U	0.5 U	0.5 U	0.5 U	0.3	0.7 U
CHROMIUM, TOTAL	1	3.3 U	5 U	5 U	5 U	1.8	3.3 U
IRON, TOTAL	200	264	20	44	33	120	40.4
LEAD, TOTAL	0.6	4.3	0.5 U	0.5 U	0.5 U	0.4	1.2 U
MANGANESE, TOTAL	1.7	14.4	5 U	5 U	5 U	2	25
MERCURY, TOTAL	0.02 U	0.1 U	0.2 U	0.2 U	0.2 U	0.02 U	0.1 U
NICKEL, TOTAL	4 U	8.7 U	4 U	4 U	6	4 U	8.7 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW22A-95C	78-GW22A-95D	78-GW22A-96A	78-GW22A-96B	78-GW22A-96C	78-GW22B-95C	78-GW22B-95D
DATE SAMPLED	07/09/95	10/24/95	01/17/96	04/09/96	07/17/96	07/09/95	10/24/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	10 U	0.5 U	0.5 U	0.3 U	2.4 U	10 U	0.5 U
ARSENIC, TOTAL	0.5 U	0.5 U	0.5 U	0.1 U	1.4 U	2.2	2.1
BERYLLIUM, TOTAL	0.5 U	0.5 U	0.5 U	0.3	0.7 U	0.5 U	0.5 U
CHROMIUM, TOTAL	5 U	5 U	5 U	1 U	3.3 U	5 U	5 U
IRON, TOTAL	70	52	43	42	186	1400	1130
LEAD, TOTAL	0.5 U	0.5 U	0.5 U	0.2	1.2 U	5.7	4.8
MANGANESE, TOTAL	6	5 U	5 U	1 U	16.3	5 U	5 U
MERCURY, TOTAL	0.2 U	0.2 U	0.2 U	0.02 U	0.1 U	0.2 U	0.2 U
NICKEL, TOTAL	4 U	4 U	4 U	4 U	8.7 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW22B-96A	78-GW22B-96B	78-GW22B-96C	78-GW23-95C	78-GW23-95D	78-GW23-96A	78-GW23-96B
DATE SAMPLED	01/17/96	04/10/96	07/17/96	07/12/95	10/25/95	01/17/96	04/09/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.5 U	0.3 U	2.4 U	10 U	0.5 U	0.5 U	0.3 U
ARSENIC, TOTAL	3.8	3.9	30.1	0.5 U	0.5 U	0.5 U	0.1 U
BERYLLIUM, TOTAL	0.5 U	0.3	0.7 U	0.5 U	0.5 U	0.5 U	0.3
CHROMIUM, TOTAL	5 U	2.2	79.9	5 U	5 U	5 U	1 U
IRON, TOTAL	1460	2100	24600	230	308	329	200
LEAD, TOTAL	4.5	4.5	112	0.5 U	0.5 U	0.5 U	0.3
MANGANESE, TOTAL	5 U	4.1	54.2	5 U	5 U	5 U	1.2
MERCURY, TOTAL	0.2 U	0.02 U	0.15	0.2 U	0.2 U	0.2 U	0.02 U
NICKEL, TOTAL	4 U	4 U	28	4 U	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW23-96C	78-GW24-95C	78-GW24-95D	78-GW24-96A	78-GW24-96B	78-GW24-96C	78-GW24DW-95C
DATE SAMPLED	07/14/96	07/09/95	10/25/95	01/21/96	04/09/96	07/16/96	07/12/95
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	2.6 U	10 U	0.5 U	0.5 U	0.3 U	2.4 U	10 U
ARSENIC, TOTAL	1.4 U	0.5 U	0.5 U	0.5 U	0.1 U	1.4 U	0.5 U
BERYLLIUM, TOTAL	0.7 U	0.5 U	0.5 U	0.5 U	0.3	0.7 U	0.5 U
CHROMIUM, TOTAL	3.3 U	5 U	5 U	5 U	1	3.3 U	5 U
IRON, TOTAL	3040	1300	1090	2070	1700	16600	160
LEAD, TOTAL	3.2	0.5 U	0.5 U	0.5 U	0.4	1.2 U	0.5 U
MANGANESE, TOTAL	13.2	6	5 U	5 U	3.2	35.3	10
MERCURY, TOTAL	0.1 U	0.2 U	0.2 U	0.2 U	0.02 U	0.1 U	0.2 U
NICKEL, TOTAL	8.7 U	4 U	4 U	4 U	4 U	8.7 U	4 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW24DW-95D	78-GW24DW-96A	78-GW24DW-96B	78-GW24DW-96C	78-GW24IW-95C	78-GW24IW-95D	78-GW24IW-96A
DATE SAMPLED	11/05/95	01/21/96	04/16/96	07/15/96	07/12/95	11/05/95	01/21/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.5 U	0.5 U	0.3 U	2.6 U	10 U	0.5 U	0.5 U
ARSENIC, TOTAL	0.5 U	0.5 U	0.1 U	1.4 U	0.5 U	0.5 U	0.5 U
BERYLLIUM, TOTAL	0.5 U	0.5 U	0.2 U	0.7 U	0.5 U	0.5 U	0.5 U
CHROMIUM, TOTAL	5 U	5 U	1.1	3.3 U	5 U	5 U	5 U
IRON, TOTAL	105	196	140	1810	110	63	74
LEAD, TOTAL	0.5 U	0.5 U	0.1	3.1	0.5 U	0.5 U	0.5 U
MANGANESE, TOTAL	5 U	16	6	35.5	5 U	5 U	5 U
MERCURY, TOTAL	0.2 U	0.2 U	0.02 U	0.1 U	0.2 U	0.2 U	0.2 U
NICKEL, TOTAL	4 U	4 U	4 U	8.7 U	4 U	4 U	5

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW24IW-96B	78-GW24IW-96C	78-GW25-95C	78-GW25-95D	78-GW25-96A	78-GW25-96B	78-GW25-96C
DATE SAMPLED	04/16/96	07/17/96	07/09/95	10/24/95	01/17/96	04/09/96	07/16/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS							
ANTIMONY, TOTAL	0.3 U	2.4 U	10 U	0.5 U	0.5 U	0.3 U	2.4 U
ARSENIC, TOTAL	0.1	1.4 U	0.5 U	0.5 U	0.5 U	0.1 U	1.4 U
BERYLLIUM, TOTAL	0.2	0.7 U	0.5 U	0.5 U	0.5 U	0.3	0.7 U
CHROMIUM, TOTAL	1 U	3.3 U	5 U	5 U	5 U	1 U	3.3 U
IRON, TOTAL	81	954	160	445	322	120	87.4
LEAD, TOTAL	0.1 U	2.4	0.5 U	0.5 U	0.5 U	0.2	1.2 U
MANGANESE, TOTAL	3	12.2	5 U	5 U	5 U	1 U	2.1
MERCURY, TOTAL	0.02 U	0.1 U	0.2 U	0.2 U	0.2 U	0.02 U	0.1 U
NICKEL, TOTAL	4 U	8.7 U	4 U	4 U	5	4 U	8.7 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	78-GW31DW-95C	78-GW31DW-95D	78-GW31DW-96A	78-GW31DW-96B	78-GW31DW-96C	78-GW39-96C
DATE SAMPLED	07/12/95	11/06/95	01/20/96	04/17/96	07/11/96	07/18/96
UNITS	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
TOTAL METALS						
ANTIMONY, TOTAL	10 U	0.5 U	0.5 U	0.3 U	2.6 U	2.4 U
ARSENIC, TOTAL	0.5 U	0.5 U	0.5 U	0.1 U	1.2 U	1.4 U
BERYLLIUM, TOTAL	0.5 U	0.5 U	0.5 U	0.2	0.7 U	0.7 U
CHROMIUM, TOTAL	5 U	5 U	5 U	1 U	3.3 U	3.3 U
IRON, TOTAL	60	41	10 U	8.4	52.4	28.1
LEAD, TOTAL	0.7	0.5 U	0.5 U	0.4	2	1.2 U
MANGANESE, TOTAL	5 U	5 U	5 U	1 U	2.4	12.8
MERCURY, TOTAL	0.2 U	0.2 U	0.2 U	0.02 U	0.1 U	0.1 U
NICKEL, TOTAL	4 U	4 U	5	4 U	8.7 U	8.7 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	24-GW08-96C	24-GW09-96C	24-GW10-96C	78-EXW01-95C	78-EXW01-95D	78-EXW01-96A	78-EXW01-96B
DATE SAMPLED	07/10/96	07/11/96	07/11/96	07/13/95	10/29/95	01/18/96	04/10/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	5.3 U	5.6 U	5.3 U	1 U	1 U	1 U	1 U
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	88	54	10 U	157	146	164	121
TOTAL SUSPENDED SOLIDS	5 U	5 U	5 U	20	6	12	12

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-EXW01-96C	78-EXW02-95C	78-EXW02-95D	78-EXW02-96A	78-EXW02-96B	78-EXW02-96C	78-EXW03-95C
DATE SAMPLED	07/17/96	07/13/95	10/29/95	01/18/96	04/10/96	07/10/96	07/09/95
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	5.8 U	1 U	1 U	1 U	1 U	5.2 U	5
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	150	193	159	**227**	170	150	625
TOTAL SUSPENDED SOLIDS	5 U	15	3	**8**	18	5 U	5

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-EXW03-95D	78-EXW03-96A	78-EXW03-96B	78-EXW03-96C	78-EXW04-95C	78-EXW04-95D	78-EXW04-96A
DATE SAMPLED	10/28/95	01/18/96	04/16/96	07/18/96	07/13/95	10/27/95	01/18/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	1 U	1 U	1 U	5.8 U	7.31	1 U	1 U
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	437	253	515	270	365	337	276
TOTAL SUSPENDED SOLIDS	23	32	41	9	14	1 U	9

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-EXW04-96B	78-EXW04-96C	78-EXW05-95C	78-EXW05-95D	78-EXW05-96A	78-EXW05-96B	78-EXW06-95C
DATE SAMPLED	04/11/96	07/17/96	07/14/95	10/26/95	01/19/96	04/09/96	07/13/95
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	1 U	5.4 U	1 U	1 U	12.1	4.1	1 U
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	275	250	359	520	444	387	228
TOTAL SUSPENDED SOLIDS	2	5 U	9	3	91	4	108

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-EXW06-95D	78-EXW06-96A	78-EXW06-96B	78-EXW07-95C	78-EXW07-95D	78-EXW07-96A	78-EXW07-96B
DATE SAMPLED	10/26/95	01/19/96	04/09/96	07/13/95	10/29/95	01/19/96	04/09/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	1 U	4.56	2.4	1 U	1 U	1.08	1 U
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	479	140	304	422	627	218	512
TOTAL SUSPENDED SOLIDS	23	30	111	12	3	12	59

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-EXW08-95C	78-EXW08-95D	78-EXW08-96A	78-EXW08-96B	78-EXW09-95C	78-EXW09-95D	78-EXW09-96A
DATE SAMPLED	07/13/95	10/26/95	01/19/96	04/09/96	07/13/95	10/28/95	01/19/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	1 U	1 U	40.6	8.9	1 U	1 U	2.09
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	495	172	217	547	291	377	153
TOTAL SUSPENDED SOLIDS	4	4	17	464	57	190	63

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-EXW09-96B	78-EXW09-96C	78-EXW10-95C	78-EXW10-95D	78-EXW10-96A	78-EXW10-96B	78-EXW11-95C
DATE SAMPLED	04/17/96	07/18/96	07/13/95	10/25/95	01/17/96	04/09/96	07/13/95
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	1 U	5.9 U	1.63	5 U	1 U	3.3	1 U
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	267	240	97	649	262	187	273
TOTAL SUSPENDED SOLIDS	85	14	90	27	136	9	77

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-EXW11-95D	78-EXW11-96A	78-EXW11-96B	78-GW01-95C	78-GW01-95D	78-GW01-96A	78-GW01-96B
DATE SAMPLED	10/25/95	01/17/96	04/09/96	07/12/95	10/25/95	01/18/96	04/11/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	5 U	1 U	5.8	2.59	5 U	1.02	1 U
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	286	187	295	272	290	321	342
TOTAL SUSPENDED SOLIDS	90	20	353	272	6	49	107

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW01-96C	78-GW04-95C	78-GW04-95D	78-GW04-96A	78-GW04-96B	78-GW04-96C	78-GW05-95C
DATE SAMPLED	07/17/96	7/10/95	10/25/95	01/17/96	04/12/96	07/15/96	07/10/95
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	5.3 U	6	5 U	1 U	1 U	5.6 U	6
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	350	122	163	282	1040	200	416
TOTAL SUSPENDED SOLIDS	6	460	203	18	8270	28	1 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW05-95D	78-GW05-96A	78-GW05-96B	78-GW05-96C	78-GW08-95C	78-GW08-95D	78-GW08-96A
DATE SAMPLED	10/25/95	01/17/96	04/11/96	07/17/96	07/09/95	10/25/95	01/17/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	5 U	1 U	1 U	5.4 U	6	5 U	1 U
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	387	361	351	350	91	72	119
TOTAL SUSPENDED SOLIDS	7	7	1 U	5 U	2	9	17

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW08-96B	78-GW08-96C	78-GW09-95C	78-GW09-95D	78-GW09-96A	78-GW09-96B	78-GW09-96C
DATE SAMPLED	04/11/96	07/14/96	07/10/95	10/25/95	01/18/96	04/11/96	07/11/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	1 U	5.5 U	0.1 U	5 U	1 U	1 U	5.3 U
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	136	140	220	215	286	353	250
TOTAL SUSPENDED SOLIDS	131	19	1	8	6	397	5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW09DW-95C	78-GW09DW-95D	78-GW09DW-96A	78-GW09DW-96B	78-GW09DW-96C	78-GW09IW-95C
DATE SAMPLED	07/12/95	11/05/95	01/21/96	04/17/96	07/15/96	07/12/95
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	4.39	1 U	1 U	1 U	5.2 U	11.4
WET CHEMISTRY						
TOTAL DISSOLVED SOLIDS	242	162	174	167	190	340
TOTAL SUSPENDED SOLIDS	6	6	1 U	14	5 U	1 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW09IW-95D	78-GW09IW-96A	78-GW09IW-96B	78-GW09IW-96C	78-GW10-95C	78-GW10-95D	78-GW10-96A
DATE SAMPLED	11/06/95	01/20/96	04/17/96	07/11/96	07/09/95	10/25/95	01/17/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	1 U	1.03	1 U	5.4 U	5	5 U	1 U
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	365	326	347	300	137	108	143
TOTAL SUSPENDED SOLIDS	2	1 U	5	5 U	1	11	8 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW10-96B	78-GW10-96C	78-GW11-95C	78-GW11-95D	78-GW11-96A	78-GW11-96B	78-GW11-96C
DATE SAMPLED	04/12/96	07/16/96	07/10/95	10/25/95	01/17/96	04/12/96	07/15/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	1 U	5.4 U	5.76	5.5	1 U	1 U	5.4 U
WET CHEMISTRY							
TOTAL DISSOLVED SOLIDS	350	140	40	60	147	64	64
TOTAL SUSPENDED SOLIDS	690	5 U	31	48	35	281	5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW14-95C	78-GW14-95D	78-GW14-96A	78-GW14-96B	78-GW14-96C	78-GW15-96C
DATE SAMPLED	07/09/95	10/26/95	01/17/96	04/11/96	07/12/96	07/14/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	4	1 U	1 U	1 U	6 U	5.3 U
WET CHEMISTRY						
TOTAL DISSOLVED SOLIDS	126	141	142	192	98	130
TOTAL SUSPENDED SOLIDS	5	38	11	691	500	5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW17-95C	78-GW17-95D	78-GW17-96A	78-GW17-96B	78-GW17-96C	78-GW19-95C	78-GW19-95D
DATE SAMPLED	07/12/95	10/26/95	01/17/96	04/10/96	07/15/96	07/10/95	10/26/95
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	1.28	1.02	1 U	8.1	5.5 U	8.21	1 U
WET CHEMISTY							
TOTAL DISSOLVED SOLIDS	242	385	127	267	310	89	132
TOTAL SUSPENDED SOLIDS	1 U	8	59	15	5 U	34	16

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW19-96A	78-GW19-96B	78-GW19-96C	78-GW21-95C	78-GW21-95D	78-GW21-96A	78-GW21-96B
DATE SAMPLED	01/17/96	04/10/96	07/16/96	07/09/95	10/24/95	01/17/96	04/10/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	1 U	1 U	5.4 U	7	5 U	1 U	1 U
WET CHEMISTY							
TOTAL DISSOLVED SOLIDS	157	171	120	150	152	157	169
TOTAL SUSPENDED SOLIDS	15	1 U	5 U	4	4	1	36

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW21-96C	78-GW22A-95C	78-GW22A-95D	78-GW22A-96A	78-GW22A-96B	78-GW22A-96C	78-GW22B-95C
DATE SAMPLED	07/17/96	07/09/95	10/25/95	01/17/96	04/09/96	07/17/96	07/09/95
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	5.5 U	1	5 U	1 U	3.2	5.6 U	13
WET CHEMISTY							
TOTAL DISSOLVED SOLIDS	120	210	150	177	156	280	86
TOTAL SUSPENDED SOLIDS	5 U	9	8	6	2	5 U	64

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW22B-95D	78-GW22B-96A	78-GW22B-96B	78-GW22B-96C	78-GW23-95C	78-GW23-95D	78-GW23-96A
DATE SAMPLED	10/24/95	01/17/96	04/10/96	07/17/96	07/12/95	10/25/95	01/17/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	5 U	15.1	3.7	5.5 U	5.94	5 U	1 U
WET CHEMISTY							
TOTAL DISSOLVED SOLIDS	117	103	215	200	101	103	116
TOTAL SUSPENDED SOLIDS	60	101	1630	700	1 U	4	3

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW23-96B	78-GW23-96C	78-GW24-95C	78-GW24-95D	78-GW24-96A	78-GW24-96B	78-GW24-96C
DATE SAMPLED	04/09/96	07/14/96	07/09/95	10/25/95	01/21/96	04/09/96	07/16/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	4.7	5.4 U	1 U	5 U	1 U	5	5.6 U
WET CHEMISTY							
TOTAL DISSOLVED SOLIDS	132	140	96	150	1 U	145	160
TOTAL SUSPENDED SOLIDS	1 U	5 U	7	11	1 U	19	5 U

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW24DW-95C	78-GW24DW-95D	78-GW24DW-96A	78-GW24DW-96B	78-GW24DW-96C	78-GW24IW-95C	78-GW24IW-95D
DATE SAMPLED	07/12/95	11/05/95	01/21/96	04/16/96	07/15/96	07/12/95	11/05/95
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	5.86	1 U	1 U	1 U	5.4 U	13.7	1 U
WET CHEMISTY							
TOTAL DISSOLVED SOLIDS	214	222	207	204	200	312	300
TOTAL SUSPENDED SOLIDS	3	11	1 U	10	8	15	14

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW24IW-96A	78-GW24IW-96B	78-GW24IW-96C	78-GW25-95C	78-GW25-95D	78-GW25-96A	78-GW25-96B
DATE SAMPLED	01/21/96	04/16/96	07/17/96	07/09/95	10/24/95	01/17/96	04/09/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	1 U	1 U	5.6 U	4	5 U	1 U	1.5
WET CHEMISTY							
TOTAL DISSOLVED SOLIDS	311	319	280	131	149	178	176
TOTAL SUSPENDED SOLIDS	15	5	5 U	1 U	14	8	31

GROUNDWATER ANALYTICAL RESULTS
JULY 1995 - SEPTEMBER 1996
OPERABLE UNIT NO. 1 - SITES 24 AND 78
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
O&G AND WET CHEMISTY

SAMPLE ID	78-GW25-96C	78-GW31DW-95C	78-GW31DW-95D	78-GW31DW-96A	78-GW31DW-96B	78-GW31DW-96C	78-GW39-96C
DATE SAMPLED	07/16/96	07/12/95	11/06/95	01/20/96	04/17/96	07/11/96	07/18/96
UNITS	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
OIL AND GREASE	5.4 U	6.8	1 U	1 U	1 U	5.4 U	5.4 U
WET CHEMISTY							
TOTAL DISSOLVED SOLIDS	110	206	144	283	269	130	140
TOTAL SUSPENDED SOLIDS	5 U	11	1 U	1 U	5	12	5 U

ATTACHMENT F
REMEDIAL SYSTEM MAINTENANCE REPORT

Quarterly Report – July to September 1996
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	8/1–9/4/96 9/10–9/30/96	7/15–9/4/96 9/6–9/30/96
Duration	56 days	73 days
Product Recovery		
Previously reported	0	0
Current period	0	0
Total to date	0	0
Treated Groundwater (Note: Flow meters not working entire period.)		
Estimated rate	5.8 gpm	14 gpm
Duration	56 days	73 days
Estimated total treated this period	467,212 gallons	1,471,680 gallons

Treatment System Performance

1. OHM commenced operation of South Plant 7/15/96.
2. After re-aligning backwash pumps, OHM commenced operation of the North Plant 8/1/96.
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 Calsperse changeout both plants.
4. Power was out to both plants due to Hurricane Fran from 9/4/96 through 9/10/96.
5. pH of North Plant influent 7.0, South Plant influent 8.2.

Comments and Recommendations

1. The Draft Work Plan for Systems Cleaning was submitted to LANTDIV on 9/19/96 for review and comment. Comments have been received and a re-submission scheduled for 11/15/96.
2. The volumes of treated groundwater have been estimated based on previous measured influent flow rates from the wells for each plant.
3. Attached is tabular analytical data for the two sampling events which occurred during the reporting period.

November 13, 1996

Prepared by: James E. Dunn, Jr., P.E. Date
Senior Project Manager

OHM Remediation Services Corp.

Camp LeJeune

North Plant
Monthly Monitoring Results
Month: Sept '96

Project #18859

Sample Point	CL-N-IN001	CL-N-EF001	CL-N-OW001	CL-N-AS001	CL-N-SF001
Date Sampled	9/10/96	9/10/96	9/10/96	9/10/96	9/10/96
Date Analyzed	9/24/96	9/24/96	9/24/96	9/24/96	9/24/96

Volatiles	**8021***	**Results in mg/l**				
trans-1,2-Dichloroethene		0.003	<0.0005	N/A	<0.0005	N/A
Trichloroethylene		0.043	<0.0005	N/A	<0.0005	N/A
Vinyl Chloride		0.075	<0.0005	N/A	<0.0005	N/A
Benzene		0.071	<0.0005	N/A	<0.0005	N/A
1,2-cis-Dichloroethylene		0.383	<0.0005	N/A	<0.0005	N/A

Total Metals	**Method**	**Results in mg/l**				
Antimony	7041	<0.001	<0.001	N/A	N/A	<0.001
Arsenic	7060	<0.002	<0.002	N/A	N/A	<0.002
Beryllium	6010A	<0.001	<0.001	N/A	N/A	<0.001
Calcium	6010A	64.6	63.8	N/A	N/A	60.3
Chromium	6010A	<0.004	<0.004	N/A	N/A	<0.004
Iron	6010A	9.55	0.105	N/A	N/A	0.533
Lead	6010A	<0.001	0.006	N/A	N/A	0.011
Manganese	6010A	0.058	<0.001	N/A	N/A	<0.001
Mercury	7470A	<0.0001	<0.0001	N/A	N/A	<0.0001
Nickel	6010A	0.007	0.007	N/A	N/A	<0.007

Wet Chemistry	**Method**	**Results in mg/l**				
Oil & grease	413.1	<1.00	<1.00	<1.00	N/A	N/A
TDS	160.1	236	250	N/A	N/A	246
TSS	160.2	342	5.00	N/A	N/A	<1.00
pH	150.1	6.66	8.12	N/A	N/A	N/A

QC

Volatiles P/F	P	P	P	P	P
Metals P/F	P	P	P	P	P
Wet Chemistry P/F	P	P	P	P	P

***Note:** All positive volatile results were confirmed by GC/MS Method 8260

Comments: _____

_____

Verifed by C R Pamperl
Date: 11-1-96

Released by: C R Pamperl
Date: 11-1-96

Monthly Monitoring Results
Month: Oct '96

Sample Point	CL-N-IN002	CL-N-EF002	CL-N-OW002	CL-N-AS002	CL-N-SF002
Date Sampled	10/14/96	10/14/96	10/14/96	10/14/96	10/14/96
Date Analyzed	10/28/96	10/28/96	10/28/96	10/28/96	10/28/96

Volatiles	**8021***	**Results in mg/l**				
trans-1,2-Dichloroethene		0.0007	<0.0005	N/A	<0.0005	N/A
Trichloroethylene		0.016	<0.0005	N/A	<0.0005	N/A
Vinyl Chloride		0.0015	<0.0005	N/A	<0.0005	N/A
Benzene		0.0454	<0.0005	N/A	<0.0005	N/A
1,2-cis-Dichloroethylene		0.0498	<0.0005	N/A	<0.0005	N/A

Total Metals	**Method**	**Results in mg/l**				
Antimony	7041	<0.001	<0.001	N/A	N/A	<0.001
Arsenic	7060	<0.002	<0.002	N/A	N/A	<0.002
Beryllium	6010A	<0.001	<0.001	N/A	N/A	<0.001
Calcium	6010A	55.6	161	N/A	N/A	69.1
Chromium	6010A	<0.004	<0.004	N/A	N/A	<0.004
Iron	6010A	<0.013	7.87	N/A	N/A	0.244
Lead	6010A	0.004	<0.001	N/A	N/A	<0.001
Manganese	6010A	<0.001	0.049	N/A	N/A	<0.001
Mercury	7470A	<0.0001	<0.0001	N/A	N/A	<0.0001
Nickel	6010A	<0.007	<0.007	N/A	N/A	<0.007

Wet Chemistry	**Method**	**Results in mg/l**				
Oil & grease	413.1	<1.00	<1.00	<1.00	N/A	N/A
TDS	160.1	208	200	N/A	N/A	198
TSS	160.2	69	<1.00	N/A	N/A	1.00
pH	150.1	7.96	6.70	N/A	N/A	N/A

QC

Volatiles P/F	P	P	P	P	P
Metals P/F	P	P	P	P	P
Wet Chemistry P/F	P	P	P	P	P

***Note:** All positive volatile results were confirmed by GC/MS Method 8260

Comments: _____

Verifed by C R Sawyer
Date: 11-1-96

Released by: C R Sawyer
Date: 11-1-96

Camp LeJeune

South Plant
Monthly Monitoring Results
Month: Sept '96

Project #18859

Sample Point	CL-S-IN001	CL-S-EF001	CL-S-OW001	CL-S-AS-001	CL-S-SF001	CL-S-IN001D
Date Sampled	9/10/96	9/10/96	9/10/96	9/10/96	9/10/96	9/10/96
Date Analyzed	9/19/96	9/19/96	9/19/96	9/19/96	9/19/96	9/19/96

Volatiles 8021*	**Results in mg/l**					
trans-1,2-Dichloroethene	<0.003	<0.0005	N/A	<0.0005	N/A	<0.003
Trichlorothylene	0.022	<0.0005	N/A	0.0005	N/A	0.066
Vinyl Chloride	<0.003	<0.0005	N/A	<0.0005	N/A	<0.003
Benzene	0.094	<0.0005	N/A	<0.0005	N/A	0.111
1,2-cis-Dichloroethylene	<0.003	<0.0005	N/A	<0.0005	N/A	<0.003

Total Metals	**Method**	**Results in mg/l**					
Antimony	7041	<0.001	<0.001	N/A	N/A	<0.001	<0.001
Arsenic	7060	<0.002	<0.002	N/A	N/A	<0.002	<0.002
Beryllium	6010A	<0.001	<0.001	N/A	N/A	<0.001	<0.001
Calcium	6010A	125	121	N/A	N/A	127	127
Chromium	6010A	<0.004	<0.004	N/A	N/A	<0.004	0.024
Iron	6060A	0.391	<0.013	N/A	N/A	<0.013	0.534
Lead	6010A	0.003	0.007	N/A	N/A	<0.001	<0.001
Manganese	6010A	0.026	<0.001	N/A	N/A	<0.001	0.031
Mercury	7470A	<0.0001	<0.0001	N/A	N/A	<0.0001	<0.001
Nickel	6010A	<0.007	<0.007	N/A	N/A	<0.007	<0.007

Wet Chemistry	**Metho**	**Results in mg/l**					
Oil & Grease	413.1	<1.00	<1.00	<1.00	N/A	N/A	<1.00
TDS	160.1	440	464	N/A	N/A	490	466
TSS	160.2	6.00	<1.00	N/A	N/A	<10.0	5.00
pH	150.1	7.26	8.25	N/A	N/A	N/A	7.22

QC

Volatiles P/F	P	P	P	P	P	P
Metals P/F	P	P	P	P	P	P
Wet Chemistry P/F	P	P	P	P	P	P

*** Note:** All positive volatile results were confirmed by GC/MS Method 8260

Comments: _____

_____

Verified by: [signature]
Date: 11-1-96

Released by: [signature]
Date: 11-1-96

Camp LeJeune

South Plant
Monthly Monitoring Results
Month: Oct '96

Project #18859

Sample Point	CL-S-IN002	CL-S-EF002	CL-S-OW002	CL-S-AS-002	CL-S-SF002	CL-S-IN002D
Date Sampled	10/14/96	10/14/96	10/14/96	10/14/96	10/14/96	10/14/96
Date Analyzed	10/28/96	10/28/96	10/28/96	10/28/96	10/28/96	10/28/96

Volatiles 8021*	**Results in mg/l**					
trans-1,2-Dichloroethene	0.0007	0.0005	N/A	<0.0005	N/A	0.0009
Trichlorothylene	0.03	0.0005	N/A	<0.0005	N/A	0.033
Vinyl Chloride	0.0006	0.0005	N/A	<0.0005	N/A	0.0008
Benzene	<0.0005	0.0005	N/A	<0.0005	N/A	<0.0005
1,2-cis-Dichloroethylene	0.153	0.0005	N/A	<0.0005	N/A	0.136

Total Metals	**Method**	**Results in mg/l**					
Antimony	7041	<0.001	<0.001	N/A	N/A	<0.001	<0.001
Arsenic	7060	<0.002	<0.002	N/A	N/A	<0.002	<0.002
Beryllium	6010A	<0.001	<0.001	N/A	N/A	<0.001	<0.001
Calcium	6010A	163	69.4	N/A	N/A	129	135
Chromium	6010A	<0.004	<0.004	N/A	N/A	<0.004	<0.004
Iron	6060A	0.502	0.501	N/A	N/A	0.276	0.501
Lead	6010A	0.004	0.011	N/A	N/A	0.004	0.004
Manganese	6010A	0.06	<0.001	N/A	N/A	0.028	0.053
Mercury	7470A	<0.0001	<0.0001	N/A	N/A	0.0004	<0.0001
Nickel	6010A	<0.007	<0.007	N/A	N/A	<0.007	<0.007

Wet Chemistry	**Metho**	**Results in mg/l**					
Oil & Grease	413.1	<1.00	<1.00	<1.00	N/A	N/A	<1.00
TDS	160.1	444	448	N/A	N/A	198	451
TSS	160.2	2.00	1.00	N/A	N/A	1.00	3.00
pH	150.1	7.17	8.27	N/A	N/A	N/A	7.09

QC

Volatiles P/F	P	P	P	P	P	P
Metals P/F	P	P	P	P	P	P
Wet Chemistry P/F	P	P	P	P	P	P

*** Note:** All positive volatile results were confirmed by GC/MS Method 8260

Comments: _____

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Verified by: C R Parrish
Date: 11-1-96

Released by: C R Parrish
Date: 11-1-96