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QUARTERLY MONITORING REPORT

OPERABLE UNIT NO. 2 - SITES 6 AND 82
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

REPORTING PERIOD JULY 1997 - SEPTEMBER 1997

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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. 2 (Sites 6 and 82), Marine Corps Base (MCB) Camp Lejeune, North Carolina. Figure P-1 depicts the location of OU No. 2. 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 Natural Resources; the Environmental Management Department of MCB Camp Lejeune; and the Naval Facilities Engineering Command, Atlantic Division.

The monitoring program at OU No. 2 was implemented in response to the Record of Decision (ROD) document signed by MCB Camp Lejeune on September 24, 1993. The ROD for OU No. 2 stipulates that documentation in support of the selected remedy, groundwater extraction and treatment coupled with groundwater monitoring, be maintained for periodic regulatory review.

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

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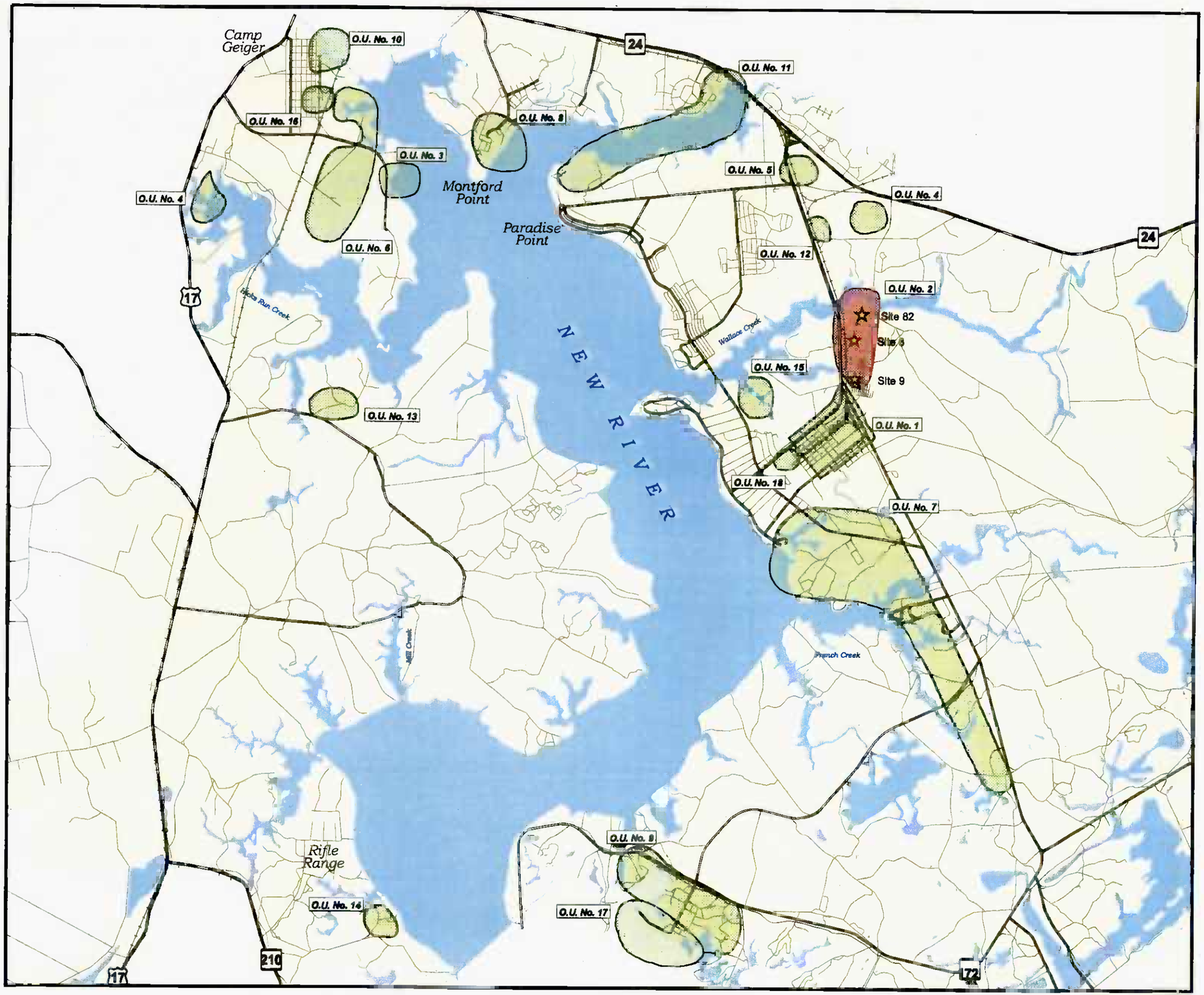

LEGEND

- ☆ Installation Restoration Sites
- Operable Unit Boundary
- Operable Unit No. 2 Boundary
- Secondary Highway
- Primary Highway
- Light Duty Road

N
W E
S

Scale
4000 0 4000 8000 12000 Feet

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

LOCATION MAP

Operable Unit No. 2 - Sites 6, 9, and 82
Monitoring and O&M Support
CTO-0367

Baker

FIGURE P - 1

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QUARTERLY MONITORING REPORT

The quarterly monitoring report which follows presents a summary of sampling activities, field observations, analytical results, and significant findings which pertain to the monitoring program and groundwater treatment system at Operable Unit (OU) No. 2 (Sites 6 and 82), Marine Corps Base (MCB) Camp Lejeune, North Carolina. Conclusions and recommendations regarding the monitoring program and groundwater treatment system are also presented within this report.

Quarterly monitoring activities at OU No. 2 commenced July 18, 1997 and concluded August 5, 1997. Groundwater samples at Sites 6 and 82 were obtained from 12 shallow monitoring wells and 16 deep monitoring wells. Figure 1 depicts all shallow and deep groundwater monitoring wells at Sites 6 and 82. [Note that all tables and figures are provided after the text portion of this report.]

Sampling activities were conducted and subsequent laboratory analyses were performed according to procedures and methods specified in the Long-Term Monitoring Work Plans for OU No. 2 (Baker, 1996). The project work plans identify a select number of monitoring wells at Sites 6 and 82 for which continued periodic sampling is required. Figure 2 depicts the locations of wells included in the monitoring program; Table 1 provides construction details of those same monitoring wells. As stipulated in the project work plans, measurements of pH, specific conductance, dissolved oxygen, temperature, and turbidity were recorded prior to sampling. Summaries of all groundwater field parameters are provided in Table 2.

Prior to groundwater sampling, each of the wells identified in the monitoring program 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 dedicated ½-inch diameter polyethylene tubing upon which a check valve and surge block were secured. The combined action of pumping and surging groundwater through the well screen served to dislodge and remove any trapped fine-grained material. Three to five well volumes were removed during redevelopment until the extracted groundwater was essentially free of sediment. Measurements of pH, specific conductance, and temperature were recorded after each well volume was removed to confirm groundwater parameter stabilization. Groundwater measurements compiled during redevelopment activities are provided as Attachment A.

The monitoring program at Sites 6 and 82 was implemented to assess whether contamination, detected during previous investigations, remains present, has migrated, has degraded through natural processes, or has been eliminated through groundwater extraction. Based upon previous analytical results and decision documents, Target Compound List (TCL) volatiles and Target Analyte List (TAL) metals were identified as contaminants of concern. Table 3 provides a summary of requested laboratory analyses and sample identifications.

Sample information, including well number, sample identification, time and date of sample collection, samplers, analytical parameters, and required laboratory turnaround time was recorded in a field logbook and on sample labels. Chain-of-custody documentation, provided in Attachment B, accompanied the samples to the laboratory.

Groundwater Elevation and Flow Direction

The following provides information concerning groundwater flow patterns at Sites 6 and 82. Water level measurements were obtained on August 5, 1997. Table 4 provides a summary of water level

measurements. The resultant groundwater elevations and groundwater flow directions in the surficial and deep aquifers are presented separately.

Surficial Aquifer

Figure 3 depicts the static elevations and approximate flow direction of groundwater in the surficial aquifer at Sites 6 and 82. Groundwater flow within the surficial aquifer is influenced by natural surface features, nearby drainages, and Wallace Creek, which lies immediately to the north. In general, the pattern of groundwater flow in the surficial aquifer mimics that of ground surface topography. Groundwater within the surficial aquifer tends to flow west-northwest toward Wallace Creek from Site 82.

Deep Aquifer

Figure 4 depicts the static elevations and approximate flow direction of groundwater within the deep aquifer, referred to as the Castle Hayne Aquifer. As presented in Figure 4, groundwater in the deep aquifer tends to flow inward toward a network of groundwater recovery wells. Contaminated groundwater is actively being extracted from the central portion of Site 82 via the recovery wells. The recovery wells appear to have impacted the local flow pattern, creating an area of lesser potentiometric elevation, or a zone of influence.

Field Observations

The following field observations were noted during the most recent quarterly sampling event at Sites 6 and 82. Recommendations concerning the field observations which follow are presented later within this report.

Monitoring wells installed at Sites 6 and 82 during the 1986 Confirmation Study have begun to exhibit signs of deterioration. Turbidity readings, obtained during sampling activities, suggest that soil material from the surrounding formation has begun to infiltrate the well screens and sand packs of older monitoring wells. Less than ideal sampling conditions may result when consistent readings of greater than 50 nephlometric turbidity units (NTUs) in groundwater are obtained. In general, it is preferable that groundwater samples be collected after turbidity readings stabilize at less than ten NTUs. Elevated turbidity readings are particularly of concern when groundwater samples are submitted for metal analyses; naturally-occurring metals which adhere to soil particles are frequently reflected among groundwater analytical results. Future sampling results will be used to determine if corrective measures will be required.

In addition to subsurface deterioration, many of the monitoring wells are in need of above-ground maintenance. Paint on bollards and protective casings of many wells has begun to peel and rust is present. The usability and security of monitoring wells should be addressed if they are to be utilized as groundwater sampling points in the future.

ANALYTICAL RESULTS AND FINDINGS

The section which follows presents analytical results and findings from sampling performed at Sites 6 and 82 during the third calendar quarter of 1997. A summary of all analytical results compiled during the sampling event are presented in Attachment C and corresponding laboratory data sheets are provided in Attachment D.

Four trip blanks were prepared prior to the sampling event. The trip blanks accompanied all groundwater samples during field collection, shipment, and laboratory analysis. As provided in Table 5, there were no detections of any organic compounds among the four trip blank samples.

Volatile Organic Compounds

Volatile organic compounds (VOCs) were detected among a limited number of groundwater samples obtained from the uppermost portion of the surficial aquifer (i.e., less than 30 feet below ground surface) and the uppermost portion of the deep aquifer (i.e., between 95 and 115 feet below ground surface). A summary of groundwater analytical results is provided in Table 6 and a positive detection summary of all analytical results is presented in Table 7. The approximate horizontal extent of VOC plumes in the shallow and deep aquifers are presented in Figures 5 and 6, respectively.

Conditions within the upper portion of the surficial aquifer were evaluated at Sites 6 and 82 through collection and analysis of groundwater samples from 12 shallow monitoring wells (refer to Table 1 for well construction details and Figure 2 for well locations). Groundwater samples were also obtained from 11 deep monitoring wells with screened intervals set in the uppermost portion of the deep aquifer, at depths ranging from 95 to 155 feet below ground surface. In addition, groundwater samples were also collected from five monitoring wells with screened intervals set from 230 to 275 feet below ground surface. Each of the 28 groundwater samples were submitted for volatile, metal, dissolved solid, and suspended solid analyses.

The analytical data suggest that there are two areas of contamination in the shallow aquifer and one area of contamination in the uppermost portion of the deep aquifer. As presented in Figures 5 and 6, the horizontal location of VOC contamination in the deep aquifer generally coincides with similar contaminants found in the shallow aquifer. The horizontal extent of contamination in the deep aquifer is larger, however. As depicted in Figures 5 and 6, the shallow and deep VOC plumes are situated within Site 82 and tend in the direction of groundwater flow (refer to Figures 3 and 4). An additional area of shallow groundwater contamination is situated at shallow monitoring well GW16. Figure 5 presents an approximate extent of horizontal contamination at GW16, because there are no additional shallow monitoring wells situated nearby with which to compare results..

A total of eight VOCs were detected among samples associated with the shallow and deep contaminant plumes which coincide. As depicted in Figure 5, positive VOC detections in the shallow aquifer were limited to samples obtained from monitoring wells GW16, GW28, GW32, and GW34. Among groundwater samples obtained from the deep aquifer, positive VOC detections were limited to monitoring wells GW01D, GW27DW, GW28DW, and GW37D. The sample obtained from well GW01D exhibited the highest concentrations of six VOCs identified. As presented in Table 6, vinyl chloride, 1,1-dichloroethene, methylene chloride, 1,2-dichloroethene (total), tetrachloroethene, and trichloroethene were detected in the sample obtained from well GW01D at concentrations of 320, 57, 8 28,000, 890, and 97,000 micrograms per liter (µg/L), respectively. Chlorobenzene and 1,1,2,2-tetrachloroethane were detected at maximum concentrations of 2,700 and 5,600 µg/L in samples obtained from shallow monitoring wells GW16 and GW34, respectively. Each VOC detection exceeded the applicable North Carolina Water Quality Standard (NCWQS) and the Federal Maximum Contaminant Level (MCL); there are no applicable standards for 1,1,2,2-tetrachloroethane.

As depicted in Figures 5 and 6, detected concentrations of VOCs in the deep aquifer are significantly higher than concentrations of the same compounds detected in the shallow aquifer. These analytical

results suggest that the identified VOCs have migrated from the uppermost portion of the surficial aquifer to the deeper aquifer, with significant vertical and horizontal migration. The data also suggest that these compounds have not migrated to depths below 120 feet below ground surface within the deep aquifer.

Metals

As presented in Tables 6 and 7, metals were detected in each of the groundwater samples submitted for analysis. As presented in Figure 7, aluminum, iron, manganese, and silver were the only metals detected at concentrations which exceeded either NCWQS or MCL. Aluminum was detected in all 28 of the groundwater samples from Sites 6 and 82. Aluminum was detected in 9 of the 28 groundwater samples at concentrations ranging from 242 to 5,280 µg/L, which exceeded the secondary MCL of 200 µg/L. Fourteen detections of iron exceeded the NCWQS of 300 µg/L. Iron was detected at concentrations ranging from 427 to 5,740 µg/L among the 14 samples with concentrations which exceeded the NCWQS. Four manganese detections exceeded the NCWQS of 50 µg/L with concentrations ranging from 88 to 122 µg/L. Silver was detected only once among the 28 groundwater samples. Silver was detected a concentration of 1.6 µg/L which exceeded the MCL of 0.1 µg/L, but did not exceed the NCWQS of 18 µg/L.

Metals have consistently been detected above applicable standards among groundwater samples obtained from Sites 6 and 82. Soils found within the coastal plain of North Carolina are naturally rich in metals, particularly iron and manganese. The observed concentrations of iron and manganese, and to a lesser extent aluminum, in groundwater may be 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 aquifer. The presence of metals in groundwater is often the result of solids or colloids in the aqueous samples. The metals detected among groundwater samples obtained from the shallow aquifer may also be indicative of naturally occurring metals in the presence of acidic soils. Additional sampling will be required to confirm the presence and concentrations of various metals in groundwater at Sites 6 and 82.

Total Suspended and Dissolved Solids

Total suspended solid (TSS) and total dissolved solid (TDS) analyses were performed for each of the 28 groundwater samples. Dissolved solids were detected in each of the groundwater samples at concentrations ranging from 54 to 1,600 milligrams per liter (mg/L). Suspended solids were also detected in each of the samples at concentrations ranging from 4 to 22 mg/L. Only two of the positive TDS concentrations exceeded the NCWQS of 500 mg/L

TREATMENT SYSTEM EVALUATION

A groundwater extraction and treatment system has been operating at OU No. 2 since January 1996. The system was designed to collect and treat contaminated groundwater from the central portion of Site 82 and to mitigate the potential for off-site contaminant migration. As depicted in Figure 8, the treatment system currently includes six shallow recovery wells (SRW01 through SRW06) and four deep recovery wells (DRW01 through DRW04). Contaminated groundwater extracted via the network of shallow and deep recovery wells is treated to an applicable treatment criteria and then either reused for backwash and plant service or discharged to Wallace Creek.

The eight major processes that comprise the treatment system include: groundwater feed storage and equalization; initial pH adjustment; solids and metals removal; final pH adjustment; solids filtration; air stripping; granular activated carbon adsorption; and treated effluent storage, reuse, and discharge. The following assessment of treatment system components is based on monthly sampling results provided in Table 8 and monthly remedial system reports presented in Attachment E.

During the third calendar quarter of 1997, over 37 million gallons of contaminated groundwater were extracted and treated at OU No. 2. The treatment plant operated 1,778 hours, or 83 percent of the 2,136 hours possible. Maintenance and power outages accounted for the 358 hours of total downtime during the quarter. All of the shallow and deep extraction wells remained operational throughout the evaluation period. The average rate at which groundwater was extracted and treated, while operational, was 349 gallons per minute (gpm). Based upon the observed extraction rate of groundwater from similarly constructed shallow recovery wells (i.e., those less than 35 feet below ground surface), an extraction rate of between four and eight gpm may be assumed. The approximate rate at which groundwater was extracted from the uppermost portion of the shallow aquifer was therefore between 24 and 48 gpm, which accounts for between 6 to 15 percent of the total volume extracted. Based upon an assumed extraction rate from the shallow aquifer, the approximate rate at which deep groundwater was extracted would be between 301 and 325 gpm, which would account for the remaining 85 to 94 percent of the total volume. The average rate of groundwater extraction from each of the four deep recovery wells, assuming a uniform extraction rate, would therefore be between 75 and 81 gpm.

The effect of active groundwater extraction from the deep aquifer is clearly evident in Figure 4. An area of lesser potentiometric elevation has been created at depths of 95 to 115 feet below ground surface, over an area of approximately 9 to 16 acres. The observed area of influence appears to include the most highly contaminated portion of the VOC plume in the deep aquifer, which suggests that contaminated groundwater in the deep aquifer is indeed being extracted (refer to Figure 6).

The same observation regarding shallow groundwater extraction is not as evident as in the deep aquifer, based upon observed groundwater elevations. Shallow recovery well SRW01 is located within the central portion of the shallow groundwater VOC plume, adjacent to monitoring well GW34. The most recent shallow groundwater sample obtained from monitoring well GW34 had over 6,000 µg/L of total VOCs. The remaining five shallow recovery wells are situated along the leading, downgradient edge of the shallow VOC plume (refer to Figure 5). The five shallow recovery wells are positioned to limit contaminant migration and intercept the VOC plume as it presumably travels in the direction of groundwater flow.

Monthly treatment system monitoring includes sample collection and analysis of plant influent, air stripper effluent, and plant effluent. Table 8 presents monthly sampling results obtained during July, August, and September of 1997. Plant influent is comprised of two separate components, groundwater extracted from the uppermost portion of the surficial aquifer and groundwater extracted from the deeper aquifer. Based upon constant input of an average influent concentration at the assumed extraction rates, approximately 106 and 3,650 pounds of volatile contaminants were extracted from the shallow and deep aquifers during the quarter, respectively. The average total influent concentration during the quarter was used to estimate the total weight of extracted contaminants.

Analytical results indicate that components of the treatment system are, for the most part, functioning effectively. Effluent samples obtained during the first two months of the quarter, however, had detections of trichloroethene which exceeded the required effluent concentration of 2.8 µg/L.

Trichloroethene was detected at concentrations of 49 and 55 µg/L in samples obtained from the plant effluent during July and August. Trichloroethene was not detected in the sample obtained during September. With the exception of trichloroethene, it appears that the treatment system components are either reducing contamination to the discharge limits or are eliminating contamination altogether. Effluent samples obtained in the future will be used to determine if any adjustments to the treatment process are necessary.

As presented in Table 8, influent to the plant contained the VOCs trans-1,2-dichloroethene, tetrachloroethene, trichloroethene, and vinyl chloride at concentrations exceeding applicable groundwater standards. In addition to VOCs, influent to the treatment plant contained metals, dissolved solids, and suspended solids. Arsenic, barium, lead, manganese, and mercury were detected among samples obtained from the treatment system. As the results presented in Table 8 suggest, the metals have also been reduced through treatment to levels below the applicable discharge limits.

RECOMMENDATIONS

Based upon the observations and findings presented in this quarterly report, the following recommendations for the monitoring program at OU No. 2 are provided. If non-significant changes are made to a component of the selected remedy described in the ROD (Baker, 1993), 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. The intent of this report and future reports is to provide a thorough description of proposed recommendations and a brief listing of implemented actions.

Install Sampling Ports

In order to provide a more detailed assessment of treatment system efficiency in the future, it is recommended that each recovery well be fitted with a sampling port from which a groundwater sample may be obtained. Discrete groundwater samples could be obtained from each recovery well via the sampling ports. The samples would be obtained at least once quarterly and would coincide with periodic treatment plant sampling activities. Contaminant concentrations in groundwater extracted from each recovery well could then be determined, providing a measure of recovery well efficiency.

Field Verify Survey Coordinates

It is recommended that survey information from a select number of monitoring wells and all recovery wells be field verified using a global positioning system (GPS). Although only accurate to within roughly a meter, the GPS system may be employed to verify that original survey coordinates are correct. In addition to monitoring and recovery wells, a limited amount of supplemental survey information may also be gathered from the site. During the period from 1992 through 1996 several new structures, unimproved roads, utilities, and fences were added to the study area. The GPS system may also be employed to supplement existing survey information with the significant changes that have occurred. Little effort would be required to ensure that existing survey information is accurate and to provide updated base mapping.

Maintain Well Security and Aesthetics

Shallow monitoring wells that were installed during the confirmation 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 padlocks used to secure the protective covers are either missing or no longer function properly. 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 resistant paint. New padlocks that operate with a universal key should also be installed, as needed.

REFERENCES

Baker Environmental, Inc. (Baker). September 1993. Record of Decision for Operable Unit No. 2 (Sites 6, 9, and 82). Final. Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

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

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

TABLES

TABLE 1

SUMMARY OF WELL CONSTRUCTION DETAILS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well No.	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)	Sand Pack Interval Depth (feet, bgs)	Bentonite Interval Depth (feet, bgs)	Stick-Up (feet, ags)
06-GW01	10-21-86	35.18	32.7	25.0	25.0	5.0 - 25.0	3.0 - 25.0	2.0 - 3.0	2.48
06-GW01D	11-07-92	35.31	32.8	117.0	112.5	102.7 - 111.7	99.5 - 117.0	96.0 - 99.5	2.51
06-GW01DA	04-03-93	35.23	32.7	230.0	230.0	220.0 - 230.0	215.0 - 230.0	190.0 - 230.0	2.53
06-GW01DB	09-10-93	NA	NA	263.0	262.0	247.0 - 262.0	240.0 - 263.0	234.0 - 240.0	2.50
06-GW02DW	11-07-92	37.61	35.1	122.0	122.0	108.1 - 118.1	105.0 - 122.0	101.0 - 105.0	2.51
06-GW03	10-24-86	31.32	28.8	25.5	25.0	5.0 - 25.5	3.0 - 25.5	2.0 - 3.0	2.52
06-MW03D	03-31-93	35.18	34.2	201.5	118.0	97.6 - 117.6	94.0 - 118.0	898.0 - 94.0	0.98
06-GW15D	04-06-93	28.0	25.2	160.0	155.0	145.0 - 155.0	141.0 - 155.0	139.0 - 141.0	2.80
06-GW16	11-07-92	27.63	24.9	20.0	20.0	5.4 - 19.8	3.0 - 20.0	1.6 - 3.0	2.73
06-GW17	09-25-92	28.10	25.7	18.5	17.6	2.3 - 17.1	1.5 - 18.5	0.5 - 1.5	2.40
06-GW21	09-24-92	30.30	27.9	24.0	22.5	8.0 - 22.0	6.0 - 24.0	4.5 - 6.0	2.40
06-GW27DW	10-12-92	24.47	22.5	112.0	110.0	100.1 - 109.1	97.0 - 112.0	94.5 - 97.0	1.97
06-GW27DA	08-13-93	NA	NA	236.0	236.0	226.0 - 236.0	224.0 - 236.0	100.0 - 224.0	2.5
06-GW28	10-10-92	30.20	27.6	32.5	32.0	17.5 - 31.7	15.0 - 32.5	13.3 - 15.0	2.60
06-GW28DW	10-20-92	31.74	28.7	115.0	114.5	104.7 - 113.6	99.0 - 115.0	95.0 - 99.0	3.04
06-GW30	11-07-92	12.60	9.9	21.0	20.0	5.3 - 19.7	3.0 - 21.0	1.5 - 3.0	2.70
06-GW30DW	03-04-93	11.90	9.9	161.9	100.0	89.6 - 99.6	83.0 - 100.0	76.5 - 83.0	2.00
06-GW32	04-01-93	21.79	19.6	27.0	27.0	11.0 - 26.0	10.0 - 27.0	7.0 - 10.0	2.19
06-GW33	04-01-93	22.42	20.0	22.0	22.0	6.0 - 21.0	4.5 - 22.0	3.0 - 4.5	2.42
06-GW34	03-05-93	32.01	29.0	36.0	35.0	19.0 - 34.0	17.5 - 35.0	15.0 - 17.5	3.01
06-GW35D	03-07-93	14.29	12.0	201.0	105.0	95.0 - 105.0	90.0 - 105.0	87.0 - 90.0	2.29
06-GW36D	04-01-93	17.61	15.6	201.5	95.0	75.0 - 95.0	66.0 - 95.0	62.0 - 66.0	2.01
06-GW37D	04-01-93	15.96	14.0	111.5	95.0	75.0 - 95.0	73.0 - 95.0	70.0 - 73.0	1.96
06-GW38D	08-28-93	NA	NA	277.0	275.0	255.0 - 275.0	253.0 - 277.0	248.0 - 253.0	2.50

TABLE 1 (Continued)

SUMMARY OF WELL CONSTRUCTION DETAILS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well No.	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)	Sand Pack Interval Depth (feet, bgs)	Bentonite Interval Depth (feet, bgs)	Stick-Up (feet, ags)
06-GW40DW	12-04-94	NA	NA	250.0	246.0	230.0 - 245.0	225.0 - 250.0	198.0 - 225.0	2.50
06-GW40DWA	12-06-94	NA	NA	120.0	116.0	100.0 - 115.0	92.0 - 120.0	87.0 - 92.0	2.50
82-MW02	06-17-91	6.28	3.71	13.2	13.0	3.0 - 13.0	2.0 - 13.0	2.0 - 1.0	2.57
82-MW03	06-18-91	24.57	21.98	21.5	21.0	11.0 - 21.0	9.0 - 21.5	7.0 - 9.0	2.59

Notes:

ags = above ground surface
bgs = below ground surface
msl = mean sea level
NA = Information not available

TABLE 2

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number (Sample Date)	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen (mg/L)	Specific Conductance (µmhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)
06-GW01 (07-26-97)	0953	1.0	2.4	170	22.0	5.49	159
	1003	2.0	2.6	153	20.0	5.66	17.4
	1013	3.0	2.5	148	20.0	5.73	5.4
	1023	4.0	2.4	147	20.0	5.78	2.9
06-GW01D (07-26-97)	0700	2.0	2.0	530	21.0	7.22	2.3
	0930	2.5	2.1	520	20.5	7.25	1.8
	1140	3.0	2.0	515	20.0	7.18	1.4
06-GW01DA (07-26-97)	0700	2.0	1.8	278	21.0	7.53	2.0
	0950	2.5	1.9	281	20.5	7.49	1.6
	1245	3.0	1.8	274	20.5	7.45	1.3
06-GW01DB (07-25-97)	1100	1.0	1.3	876	21.0	8.53	30.4
	1140	1.5	1.5	886	20.5	8.46	40.6
	1230	2.0	1.6	919	20.5	8.54	18.5
	1320	2.5	1.9	927	20.5	8.53	11.4
	1410	3.0	1.9	932	20.5	8.52	11.1
06-GW02D (07-27-97)	1639	1.0	1.4	250	20.0	7.33	7.6
	0700	2.5	1.3	245	19.5	7.27	3.7
	0940	3.0	1.4	243	19.5	7.29	3.4
06-GW03 (07-26-97)	1447	1.0	2.8	264	21.0	6.04	3.2
	1446	1.5	2.6	255	21.0	6.01	1.9
	1505	2.0	2.7	254	21.5	6.03	1.6
	1514	2.5	2.6	256	21.0	6.03	1.3
	1523	3.0	2.7	252	21.5	6.04	1.2
06MW03D (07-27-97)	1320	1.0	1.8	232	19.0	7.11	14.6
	1355	1.5	1.7	233	19.5	7.46	30.5
	1420	2.0	1.9	225	19.0	7.48	6.2
	1445	2.5	1.8	225	19.0	7.49	4.7
	1510	3.0	1.8	227	19.0	7.50	3.2
06-GW15D (07-26-97)	0920	1.0	2.1	202	20.0	7.31	3.0
	1110	1.5	2.3	207	20.5	7.44	2.9
	1400	2.0	2.3	209	21.0	7.58	1.5
	1545	2.5	2.2	206	20.5	7.34	6.4
	1730	3.0	2.1	203	20.5	7.38	1.1

TABLE 2 (Continued)

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number (Sample Date)	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen (mg/L)	Specific Conductance (µmhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)
06-GW16 (07-27-97)	1336	0.5	1.8	139	21.5	5.00	9.3
	1355	1.0	1.8	145	21.5	5.00	5.5
	1415	1.5	1.9	150	21.0	5.01	4.0
	1442	2.0	2.0	153	21.0	5.11	3.4
	1500	2.5	2.0	159	21.0	5.27	3.0
	1520	3.0	1.9	162	21.5	5.29	2.7
06-GW17 (07-27-97)	0835	0	2.3	213	18.5	6.07	40
	0905	1.0	1.3	213	19.0	6.01	16.6
	0940	2.0	1.8	211	19.0	5.99	20.1
	1031	3.0	1.8	212	19.0	6.01	20.4
	1114	3.5	1.8	213	19.5	5.88	18.7
06-GW21 (07-27-97)	1609	1.0	1.6	89	21.0	4.95	12.5
	1629	1.5	1.6	86	22.0	4.96	7.5
	1649	2.0	1.8	83	21.5	4.94	6.2
	1709	2.5	1.7	84	22.5	4.98	4.8
	1729	3.0	1.7	81	22.0	4.96	3.5
06-GW27DA (07-23-97)	1535	0.2	1.0	610	22.0	9.04	22.4
	1640	0.4	1.4	637	21.5	9.36	9.8
	1750	0.6	1.2	644	21.5	9.43	8.3
	1850	0.8	1.4	647	23.0	9.32	11.8
	1800	1.8	1.3	648	21.5	9.28	1.4
06-GW27DW (07-22-97)	1300	0.2	0.6	184	21.5	7.23	2.1
	1350	0.4	0.5	245	21.5	7.07	1.7
	1440	0.6	0.5	243	22.0	7.04	3.7
	1530	0.8	0.6	262	21.0	7.40	1.1
	1620	1.0	0.5	261	21.5	7.59	0.9
	1710	1.2	0.5	254	22.0	7.77	0.7
	1800	1.4	0.6	259	22.0	7.80	0.5
06-GW28 (07-25-97)	1040	1.0	2.1	115	20.0	4.50	3.0
	1130	1.5	1.8	102	21.0	4.94	2.7
	1210	2.0	1.8	123	20.0	4.79	1.7
	1245	2.5	1.7	105	20.0	4.79	1.3
	1320	3.0	1.7	108	20.0	4.77	1.1

TABLE 2 (Continued)

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number (Sample Date)	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen (mg/L)	Specific Conductance (µmhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)
06-GW28DW (07-24-97 and 07-25-97)	1600	0.25	2.8	245	23.5	7.46	6.5
	1830	1.0	1.3	224	20.5	7.62	20.0
	0715	2.5	1.4	228.5	18.5	7.42	2.0
	0850	3.0	1.6	220	19.0	7.47	2.0
06-GW30 (07-24-97)	0945	1.0	1.4	142	21.0	5.38	5.4
	1005	1.5	1.2	139	21.0	5.69	4.2
	1025	2.0	1.3	137	21.0	5.21	3.7
	1045	2.5	1.3	131	20.5	5.31	3.4
	1105	3.0	1.3	133	21.0	5.30	2.2
06-GW30DW (07-24-97)	0830	0.5	1.7	243	20.5	7.15	11.1
	0905	1.0	1.7	253	20.0	6.72	7.7
	0940	1.5	1.7	261	20.5	6.79	5.0
	1015	2.0	1.6	242	20.5	7.25	2.6
	1050	2.5	1.6	248	20.5	7.18	1.8
	1125	3.0	1.7	252	21.0	7.19	1.5
06-GW32 (07-27-97)	1830	1.0	1.7	145	21.0	5.70	8.0
	1845	2.0	1.5	156	20.5	5.97	6.1
	1856	3.0	1.7	164	20.5	6.05	4.6
06-GW33 (07-27-97)	1745	1.0	.7	138	21.0	3.94	1.7
	1755	2.0	.8	136	23.0	4.06	1.7
	1805	3.0	.9	136	22.0	4.08	2.1
	1815	4.0	.8	136	22.0	4.10	1.7
06-GW34 (07-24-97)	1720	1.0	2.0	212	22.0	4.37	7.5
	1728	2.0	1.6	215	21.0	4.37	2.7
	1736	3.0	1.7	221	22.0	4.39	2.4
	1744	4.0	1.5	211	20.0	4.63	1.6
06-GW35D (07-27-97)	1619	0	2.6	330	19.5	7.08	36.5
	1640	0.5	2.8	336	18.5	7.80	21.0
	1700	1.0	1.5	332	18.0	7.87	7.1
	1718	1.5	1.5	329	18.0	7.88	2.6
	1739	2.0	1.6	333	18.5	7.89	1.7
	1758	2.5	1.7	333	18.0	7.84	1.5
	1819	3.0	1.7	331	18.5	7.88	1.6

TABLE 2 (Continued)

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number (Sample Date)	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen (mg/L)	Specific Conductance (µmhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)
06-GW36D (07-27-97)	1000	1.0	2.0	259	19.5	7.08	3.3
	1025	1.5	2.3	272	20.5	7.18	2.1
	1050	2.0	2.2	281	20.5	7.26	1.4
	1115	2.5	2.1	274	20.5	7.30	1.2
	1140	3.0	2.1	277	21.0	7.30	1.3
06-GW37D (07-23-97)	1125	0.5	1.4	433	22.5	6.99	0.8
	1200	1.0	1.6	398	22.0	7.02	1.1
	1235	1.5	1.5	366	26.0	7.00	1.1
	1310	2.0	1.4	355	27.0	7.09	0.8
	1345	2.5	1.5	352	26.0	6.95	0.6
	1420	3.0	1.4	349	26.0	6.93	0.6
06-GW38D (07-26-97)	1300	1.0	1.8	769	23.0	8.80	3.3
	1435	1.5	1.7	765	23.5	8.80	3.3
	1535	2.0	1.7	758	22.0	8.63	2.5
	1635	2.5	1.8	754	22.0	8.62	2.4
	1735	3.0	1.7	756	22.0	8.63	2.1
06-GW40DW (07-24-97)	1440	1.0	1.7	259	21.0	7.25	3.3
	1555	1.5	1.2	281	21.0	7.31	2.5
	1640	2.0	1.7	256	21.0	7.40	1.8
	1725	2.5	1.1	264	22.0	7.32	1.1
	1745	3.0	1.1	267	22.0	7.35	0.9
06-GW40DWA (07-24-97)	1543	0.5	1.0	1807	21.0	8.03	28.1
	1751	1.0	1.2	2116	20.0	7.94	15.6
	0930	2.0	1.4	1487	20.0	7.83	5.2
	1200	2.5	1.5	1858	20.0	7.82	9.8
	1340	3.0	1.6	1995	21.0	7.88	10.3
82-MW02 (07-27-97)	1935	1.0	0.7	684	21.5	5.89	44.0
	1943	2.0	0.8	681	22.5	5.94	37.0
	1955	3.0	0.7	685	22.5	5.95	18.0

TABLE 2 (Continued)

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number (Sample Date)	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen (mg/L)	Specific Conductance (µmhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)
82-MW03 (07-23-97)	0855	1.0	1.9	214	22.0	3.62	16.2
	0907	2.0	2.0	213	23.0	3.51	2.4
	0919	3.0	1.9	213	22.0	3.55	1.9
	0931	4.0	1.9	215	22.0	3.59	1.8

Notes:

N.T.U. = Nephelometric Turbidity Units
S.U. = Standard Units
µmhos/cm = micro ohms per centimeter
°C = Degrees Centigrade
mg/L = milligrams per liter

TABLE 3

SAMPLING SUMMARY - JULY 1997
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Location	Media	CLP Volatiles[1]	CLP Metals[2]	Total Dissolved Solids[3]	Total Suspended Solids[3]	Laboratory Sample Identification
06-GW01	Groundwater	X	X	X	X	IR06-GW01-97C
06-GW01D	Groundwater	X	X	X	X	IR06-GW01D-97C
06-GW01DA	Groundwater	X	X	X	X	IR06-GW01DA-97C
06-GW01DB	Groundwater	X	X	X	X	IR06-GW1DB-97C
06-GW02DW	Groundwater	X	X	X	X	IR06-GW02DW-97C
06-GW03	Groundwater	X	X	X	X	IR06-GW03-97C
06-GW03D	Groundwater	X	X	X	X	IR06-MW03D-97C
06-GW15D	Groundwater	X	X	X	X	IR06-GW15D-97C
06-GW16	Groundwater	X	X	X	X	IR06-GW16-97C
06-GW17	Groundwater	X	X	X	X	IR06-GW17-97C
06-GW21	Groundwater	X	X	X	X	IR06-GW21-97C
06-GW27DW	Groundwater	X	X	X	X	IR06-GW27DW-97C
06-GW27DA	Groundwater	X	X	X	X	IR06-GW27DA-97C
06-GW28S	Groundwater	X	X	X	X	IR06-GW28S-97C
06-GW28DW	Groundwater	X	X	X	X	IR06-GW28DW-97C
06-GW30	Groundwater	X	X	X	X	IR06-GW30-97C
06-GW30DW	Groundwater	X	X	X	X	IR06-GW30DW-97C
06-GW32	Groundwater	X	X	X	X	IR06-GW32-97C
06-GW33	Groundwater	X	X	X	X	IR06-GW33-97C
06-GW34	Groundwater	X	X	X	X	IR06-GW34-97C
06-GW35D	Groundwater	X	X	X	X	IR06-GW35D-97C
06-GW36D	Groundwater	X	X	X	X	IR06-GW36D-97C
06-GW37D	Groundwater	X	X	X	X	IR06-GW37D-97C
06-GW38D	Groundwater	X	X	X	X	IR06-GW38D-97C
06-GW40DW	Groundwater	X	X	X	X	IR06-GW40DW-97C
06-GW40DWA	Groundwater	X	X	X	X	IR06-GW40DWA-97C
82-MW02	Groundwater	X	X	X	X	IR82-MW02-97C
82-MW03	Groundwater	X	X	X	X	IR82-MW03-97C

Notes:

[1] Volatiles by U.S. Environmental Protection Agency, Contract laboratory Program, Statement of Work, Document Number OLM01.8.

[2] Metals by U.S. Environmental Protectoin Agency, Contract Laboratory Protocol, Statement of Work, Document Number ILM03.0.

[3] Total Suspended and Dissolved Solids by Solid Waste Method 160.1 and 160.2.

X = Requested analysis

TABLE 4

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation[1]	SWL 08/05/97	SWE 08/05/97
6GW01	35.18	21.35	13.83
6GW01D	35.31	28.76	6.55
6GW01DA	35.23	29.55	5.68
6GW01DB	NS	28.86	NA
6GW02	38.37	14.47	23.9
6GW02D	37.61	22.57	15.04
6GW03	31.32	17.05	14.27
6GW04	27.99	7.33	20.66
6GW06	26.74	6.95	19.79
6GW07	17.83	5.08	12.75
6GW07DW	20.08	7.35	12.73
6GW08	22.35	6.42	15.93
6GW11	35.05	16.58	18.47
6GW12	18.29	5.25	13.04
6GW13	20.1	6.07	13.94
6GW15D	28	20.17	7.83
6GW16	27.63	7.3	20.33
6GW17	28.1	7.35	20.75
6GW21	30.3	13.21	17.09
6GW23	26.96	7.6	19.36
6GW26	23.66	11.45	12.21
6GW27D	24.47	22.8	1.67
6GW27DA	NS	20.79	NA
6GW28	30.2	23.56	6.64
6GW28DW	31.74	27.54	4.2
6GW30	12.6	6.31	6.29
6GW30D	11.9	2.77	9.13
6GW31	30.26	11.18	19.08
6GW32	21.79	17.63	4.16
6GW33	22.42	12.3	10.12
6GW34	32.01	21.48	10.53
6GW35D	14.29	9.62	4.67
6GW36D	17.61	9.98	7.63
6GW37DW	15.96	10.37	5.59
6GW38D	31.89	23.29	8.6
6GW40DW	19.07	16.37	2.7
6GW40DWA	28.26	15.39	12.87
6MW03	31.32	6.13	25.19
6MW3D	35.18	21.36	13.69

TABLE 4 (Continued)

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation[1]	SWL 08/05/97	SWE 08/05/97
82MW2	6.03	5.35	0.68
82MW3	24.31	16.51	7.80
82MW30	32.19	10.91	21.28

Notes:

[1] Top of well casing expressed in feet above mean sea level

SWL - Static water level taken from top of well casing.
SWE - Static water elevation expressed in feet above mean sea level.
NS - Not surveyed
NA - Not applicable

TABLE 5

TRIP BLANK ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR06-TB01-97C	IR06-TB02-97C	IR06-TB03-97C	IR06-TB04-97C
DATE SAMPLED	07/23/97	07/25/97	07/25/97	07/27/97
VOLATILES (ug/l)				
CHLOROMETHANE	10 U	10 U	10 U	10 U
BROMOMETHANE	10 U	10 U	10 U	10 U
VINYL CHLORIDE	10 U	10 U	10 U	10 U
CHLOROETHANE	10 U	10 U	10 U	10 U
METHYLENE CHLORIDE	10 U	10 U	10 U	10 U
ACETONE	10 U	10 U	10 U	10 U
CARBON DISULFIDE	10 U	10 U	10 U	10 U
1,1-DICHLOROETHENE	10 U	10 U	10 U	10 U
1,1-DICHLOROETHANE	10 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	10 U	10 U	10 U
CHLOROFORM	10 U	10 U	10 U	10 U
1,2-DICHLOROETHANE	10 U	10 U	10 U	10 U
2-BUTANONE	10 U	10 U	10 U	10 U
1,1,1-TRICHLOROETHANE	10 U	10 U	10 U	10 U
CARBON TETRACHLORIDE	10 U	10 U	10 U	10 U
BROMODICHLOROMETHANE	10 U	10 U	10 U	10 U
1,2-DICHLOROPROPANE	10 U	10 U	10 U	10 U
CIS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U
TRICHLOROETHENE	10 U	10 U	10 U	10 U
DIBROMOCHLOROMETHANE	10 U	10 U	10 U	10 U
1,1,2-TRICHLOROETHANE	10 U	10 U	10 U	10 U
BENZENE	10 U	10 U	10 U	10 U
TRANS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U
BROMOFORM	10 U	10 U	10 U	10 U
4-METHYL-2-PENTANONE	10 U	10 U	10 U	10 U
2-HEXANONE	10 U	10 U	10 U	10 U
TETRACHLOROETHENE	10 U	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	10 U	10 U
TOLUENE	10 U	10 U	10 U	10 U
CHLOROBENZENE	10 U	10 U	10 U	10 U
ETHYLBENZENE	10 U	10 U	10 U	10 U
STYRENE	10 U	10 U	10 U	10 U
XYLENE (TOTAL)	10 U	10 U	10 U	10 U

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

TABLE 6

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Contaminants or Analytes	Comparison Criteria		Concentration Range		Location of Maximum Detection	Detection Frequency	Detections Above	
		NCWQS	MCL	Min.	Max.			NCWQS	MCL
Volatiles	Vinyl Chloride	0.015	2.0	16	320	06-GW01D	3/28	3	3
	1,1-Dichloroethene	7.0	7.0	11	57	06-GW01D	2/28	2	2
	Methylene Chloride	5.0	NE	8	8	06-GW01D	1/28	1	NA
	Trichloroethene	2.8	5.0	22	97,000	06-GW01D	7/28	7	7
	Tetrachloroethene	0.7	5.0	7	890	06-GW01D	4/28	4	4
	Chlorobenzene	50	100	2,700	2,700	06-GW16	1/28	1	1
	1,1,2,2-Tetrachloroethane	NE	NE	11	5,600	06-GW34	2/28	NA	NA
	1,2-Dichloroethene (total) [2]	70	70	230	28,000	06-GW01D	5/28	5	5
Total Metals	Aluminum	NE	200 [1]	42.2	5,280	82-MW03	28/28	NA	9
	Antimony	NE	6	2.0	2.6	06-GW16	2/28	NA	0
	Barium	2,000	2,000	0.5	77.6	06-GW34	28/28	0	0
	Beryllium	NE	4	0.58	0.58	82-MW03	1/28	NA	0
	Cadmium	5	5	0.41	4.8	06-GW03	4/28	0	0
	Chromium	50	100	0.81	3.0	06-GW17	8/28	0	0
	Copper	1,000	1,300	0.54	0.87	06-GW27DA	2/28	0	0
	Iron	300	300 [1]	16.8	5,740	82-MW02	24/28	14	14
	Lead	15	15	1.5	11.4	06-GW32	13/28	0	0
	Manganese	50	50 [1]	0.91	122	82-MW03	25/28	2	2
	Nickel	100	100	0.86	11	82-MW03	18/28	0	0
	Selenium	50	50	5.4	13.5	06-GW34	2/28	0	0
	Silver	18	0.1	1.6	1.6	06-GW01D	1/28	0	1
	Zinc	2,100	5,000 [1]	0.5	526	06-GW16	24/28	0	0

Notes:

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

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

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

TABLE 6 (Continued)

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Contaminants or Analytes	Comparison Criteria		Concentration Range		Location of Maximum Detection	Detection Frequency	Detections Above	
		NCWQS	MCL	Min.	Max.			NCWQS	MCL
Wet Chemistry	Total Dissolved Solids	500	500 (1)	54	1,600	06-GW40DWA	28/28	2	2
	Total Suspended Solids	NE	NE	4	22	06-GW03D	12/28	NA	NA

Notes:

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

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

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR06-GW01-97C	IR06-GW01D-97C	IR06-GW01DA-97C	IR06-GW01DB-97C	IR06-GW02DW-97C	IR06-GW03-97C
DATE SAMPLED	07/26/97	07/26/97	07/26/97	07/25/97	07/27/97	07/26/97
VOLATILES (ug/l)						
VINYL CHLORIDE	10 U	320	10 U	10 U	10 U	10 U
1,1-DICHLOROETHENE	10 U	57	10 U	10 U	10 U	10 U
METHYLENE CHLORIDE	10 U	8 J	10 U	10 U	10 U	10 U
TRICHLOROETHENE	10 U	97000	10 U	10 U	10 U	10 U
TETRACHLOROETHENE	10 U	890	10 U	10 U	10 U	10 U
CHLOROBENZENE	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	28000	10 U	10 U	10 U	10 U
TOTAL METALS (ug/l)						
ALUMINUM, TOTAL	84.6	65.6	64	242	46.2	98.2
ANTIMONY, TOTAL	1.9 U	1.9 U	1.9 U	2	1.9 U	1.9 U
BARIUM, TOTAL	22.1	31.8	3.7	1.9	6.4	43.8
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CADMIUM, TOTAL	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	4.8
CALCIUM, TOTAL	18000	121000	32800	7750	47500	36500
CHROMIUM, TOTAL	0.7 U	0.7 U	1.6	0.99	0.7 U	0.7 U
COBALT, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
COPPER, TOTAL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IRON, TOTAL	38.8	902	37.9	168	192	16.1 U
LEAD, TOTAL	1.5 U	2.3	1.5 U	1.9	1.5	1.5 U
MAGNESIUM, TOTAL	1400	3030	3400	2140	1180	2980
MANGANESE, TOTAL	3.6	33.2	20	0.91	6	0.6 U
NICKEL, TOTAL	0.8 U	0.8 U	1.9	1	0.8 U	2.1
POTASSIUM, TOTAL	2680	1790	10300	15200	1290	4120

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR06-GW01-97C	IR06-GW01D-97C	IR06-GW01DA-97C	IR06-GW01DB-97C	IR06-GW02DW-97C	IR06-GW03-97C
DATE SAMPLED	07/26/97	07/26/97	07/26/97	07/25/97	07/27/97	07/26/97
TOTAL METALS (ug/l) (cont)						
SELENIUM, TOTAL	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	5.4
SILVER, TOTAL	0.6 U	1.6	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	3420	4710	19500	230000	3610	3540
VANADIUM, TOTAL	0.94	0.8 U	0.8 U	0.8 U	0.8 U	1.3
ZINC, TOTAL	0.4 U	0.5	0.4 U	1.8	2.1	505
WET CHEMISTRY (mg/l)						
TOTAL DISSOLVED SOLIDS	120	460	190	670	170	190
TOTAL SUSPENDED SOLIDS	4 U	4	4 U	15	4 U	4 U

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR06-GW03D-97C	IR06-GW15D-97C	IR06-GW16-97C	IR06-GW17-97C	IR06-GW21-97C	IR06-GW27DA-97C
DATE SAMPLED	07/27/97	07/26/97	07/27/97	07/27/97	07/27/97	07/23/97
VOLATILES (ug/l)						
VINYL CHLORIDE	10 U	10 U	10 U	10 U	10 U	10 U
1,1-DICHLOROETHENE	10 U	10 U	10 U	10 U	10 U	10 U
METHYLENE CHLORIDE	10 U	10 U	10 U	10 U	10 U	10 U
TRICHLOROETHENE	10 U	10 U	10 U	10 U	10 U	10 U
TETRACHLOROETHENE	10 U	10 U	10 U	10 U	10 U	10 U
CHLOROBENZENE	10 U	10 U	2700	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	11	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	10 U	10 U	10 U	10 U	10 U
TOTAL METALS (ug/l)						
ALUMINUM, TOTAL	630	80.5	631	1900	243	71.4
ANTIMONY, TOTAL	1.9 U	1.9 U	2.6	1.9 U	1.9 U	1.9 U
BARIUM, TOTAL	10.8	3	36.6	43.2	33.9	3.4
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CADMIUM, TOTAL	0.4 U	0.4 U	0.4 U	0.4 U	0.54	0.41
CALCIUM, TOTAL	47600	33900	11900	24600	4030	4950
CHROMIUM, TOTAL	1.9	0.7 U	1.1	3	0.7 U	0.7 U
COBALT, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.76	0.7 U
COPPER, TOTAL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.87
IRON, TOTAL	996	179	1660	1210	26	16.8
LEAD, TOTAL	2.3	1.5 U	2.1	4.3	10	5.6
MAGNESIUM, TOTAL	1080	851	1130	663	1040	342
MANGANESE, TOTAL	23.6	8.8	88.2	2.8	7	0.6 U
NICKEL, TOTAL	0.89	0.8 U	1.3	1.7	0.8 U	0.89
POTASSIUM, TOTAL	1140	1020	761	1060	647	9450

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR06-GW03D-97C	IR06-GW15D-97C	IR06-GW16-97C	IR06-GW17-97C	IR06-GW21-97C	IR06-GW27DA-97C
DATE SAMPLED	07/27/97	07/26/97	07/27/97	07/27/97	07/27/97	07/23/97
TOTAL METALS (ug/l) (cont)						
SELENIUM, TOTAL	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
SILVER, TOTAL	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	3730	3060	8450	9370	6140	148000
VANADIUM, TOTAL	1.2	0.8 U	1.6	9.7	0.8 U	0.83
ZINC, TOTAL	4.2	5	526	4	1.4	0.73
WET CHEMISTRY (mg/l)						
TOTAL DISSOLVED SOLIDS	150	130	130	170	62	420
TOTAL SUSPENDED SOLIDS	22	4 U	10	4 U	4 U	4 U

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR06-GW27DW-97C	IR06-GW28-97C	IR06-GW28DW-97C	IR06-GW30-97C	IR06-GW30DW-97C	IR06-GW32-97C
DATE SAMPLED	07/22/97	07/25/97	07/25/97	07/24/97	07/24/97	07/27/97
VOLATILES (ug/l)						
VINYL CHLORIDE	110	10 U	250 U	10 U	10 U	16
1,1-DICHLOROETHENE	11	10 U	250 U	10 U	10 U	10 U
METHYLENE CHLORIDE	10 U	10 U	250 U	10 U	10 U	10 U
TRICHLOROETHENE	3400	22	1100	10 U	10 U	2800
TETRACHLOROETHENE	10 U	7 J	250 U	10 U	10 U	110
CHLOROBENZENE	10 U	10 U	250 U	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	250 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	4800	10 U	550	10 U	10 U	1500
TOTAL METALS (ug/l)						
ALUMINUM, TOTAL	45.5	105	60	113	46.4	183
ANTIMONY, TOTAL	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
BARIUM, TOTAL	7.2	17.4	6.4	7.6	4.5	18.5
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CADMIUM, TOTAL	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
CALCIUM, TOTAL	48800	1990	51700	16600	55700	20800
CHROMIUM, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
COBALT, TOTAL	0.7 U	0.7 U	0.7 U	2.2	0.7 U	0.7 U
COPPER, TOTAL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IRON, TOTAL	438	16.1 U	569	229	984	66.5
LEAD, TOTAL	1.5 U	1.6	1.5 U	1.5 U	1.5 U	11.4
MAGNESIUM, TOTAL	1120	1670	1160	1590	1400	1370
MANGANESE, TOTAL	7.5	8.2	19.2	21.8	28.1	6
NICKEL, TOTAL	0.86	0.91	0.8 U	10.7	0.8 U	1.4
POTASSIUM, TOTAL	1190	848	1100	1200	994	937

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR06-GW27DW-97C	IR06-GW28-97C	IR06-GW28DW-97C	IR06-GW30-97C	IR06-GW30DW-97C	IR06-GW32-97C
DATE SAMPLED	07/22/97	07/25/97	07/25/97	07/24/97	07/24/97	07/27/97
TOTAL METALS (ug/l) (cont)						
SELENIUM, TOTAL	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
SILVER, TOTAL	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	4200	8180	3690	4680	5980	5910
VANADIUM, TOTAL	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.84
ZINC, TOTAL	0.4 U	4.2	0.4 U	67	1.1	2.6
WET CHEMISTRY (mg/l)						
TOTAL DISSOLVED SOLIDS	150	54	170	98	190	120
TOTAL SUSPENDED SOLIDS	4 U	4 U	4 U	4 U	4 U	4

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR06-GW33-97C	IR06-GW34-97C	IR06-GW35D-97C	IR06-GW36D-97C	IR06-GW37D-97C	IR06-GW38D-97C
DATE SAMPLED	07/27/97	07/24/97	07/27/97	07/27/97	07/23/97	07/26/97
VOLATILES (ug/l)						
VINYL CHLORIDE	10 U	250 U	10 U	10 U	50 U	10 U
1,1-DICHLOROETHENE	10 U	250 U	10 U	10 U	50 U	10 U
METHYLENE CHLORIDE	10 U	250 U	10 U	10 U	50 U	10 U
TRICHLOROETHENE	10 U	310	10 U	10 U	88	10 U
TETRACHLOROETHENE	10 U	170 J	10 U	10 U	50 U	10 U
CHLOROBENZENE	10 U	250 U	10 U	10 U	50 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	5600	10 U	10 U	50 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	250 U	10 U	10 U	230	10 U
TOTAL METALS (ug/l)						
ALUMINUM, TOTAL	770	722	77.1	80.8	42.2	86.4
ANTIMONY, TOTAL	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
BARIUM, TOTAL	73.6	77.6	9.3	5.2	14.4	0.5
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CADMIUM, TOTAL	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
CALCIUM, TOTAL	1240	5330	58300	52300	68700	2190
CHROMIUM, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.81
COBALT, TOTAL	0.7 U	1.6	0.7 U	0.7 U	0.7 U	0.7 U
COPPER, TOTAL	0.5 U	0.54	0.5 U	0.5 U	0.5 U	0.5 U
IRON, TOTAL	427	16.1 U	499	496	726	16.1 U
LEAD, TOTAL	1.5 U	4.2	1.5 U	1.5 U	1.5 U	1.6
MAGNESIUM, TOTAL	3670	6110	1730	1320	1770	1190
MANGANESE, TOTAL	8.7	20.7	21.2	28.7	11.4	0.6 U
NICKEL, TOTAL	1.7	2.2	0.8 U	0.8 U	0.89	1.2
POTASSIUM, TOTAL	696	8560	1660	1220	1650	11200

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR06-GW33-97C	IR06-GW34-97C	IR06-GW35D-97C	IR06-GW36D-97C	IR06-GW37D-97C	IR06-GW38D-97C
DATE SAMPLED	07/27/97	07/24/97	07/27/97	07/27/97	07/23/97	07/26/97
TOTAL METALS (ug/l) (cont)						
SELENIUM, TOTAL	2.2 U	13.5	2.2 U	2.2 U	2.2 U	2.2 U
SILVER, TOTAL	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	10900	14100	6400	5000	7440	172000
VANADIUM, TOTAL	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
ZINC, TOTAL	3	30.4	0.86	0.97	0.98	2.3
WET CHEMISTRY (mg/l)						
TOTAL DISSOLVED SOLIDS	84	94	210	180	220	500
TOTAL SUSPENDED SOLIDS	5	4 U	7	7	5	4 U

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR06-GW40DW-97C	IR06-GW40DWA-97C	IR82-GW02-97C	IR82-GW03-97C
DATE SAMPLED	07/24/97	07/25/97	07/27/97	07/23/97
VOLATILES (ug/l)				
VINYL CHLORIDE	10 U	10 U	10 U	10 U
1,1-DICHLOROETHENE	10 U	10 U	10 U	10 U
METHYLENE CHLORIDE	10 U	10 U	10 U	10 U
TRICHLOROETHENE	10 U	10 U	10 U	10 U
TETRACHLOROETHENE	10 U	10 U	10 U	10 U
CHLOROBENZENE	10 U	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	10 U	10 U	10 U
TOTAL METALS (ug/l)				
ALUMINUM, TOTAL	59.1	122	486	5280
ANTIMONY, TOTAL	1.9 U	1.9 U	1.9 U	1.9 U
BARIUM, TOTAL	7.8	4.1	36.3	66.3
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.58
CADMIUM, TOTAL	0.4 U	0.49	0.4 U	0.4 U
CALCIUM, TOTAL	55500	12300	72400	3260
CHROMIUM, TOTAL	0.7 U	1.1	1	0.7 U
COBALT, TOTAL	0.7 U	0.7 U	0.7 U	7
COPPER, TOTAL	0.5 U	0.5 U	0.5 U	0.5 U
IRON, TOTAL	612	182	5740	3440
LEAD, TOTAL	1.5 U	3.2	1.5 U	1.5 U
MAGNESIUM, TOTAL	1290	9500	6120	4950
MANGANESE, TOTAL	14.1	5.1	46.7	122
NICKEL, TOTAL	0.8 U	1.9	1.7	11
POTASSIUM, TOTAL	1140	31700	489	1010

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR06-GW40DW-97C	IR06-GW40DWA-97C	IR82-GW02-97C	IR82-GW03-97C
DATE SAMPLED	07/24/97	07/25/97	07/27/97	07/23/97
TOTAL METALS (ug/l) (cont)				
SELENIUM, TOTAL	2.2 U	2.2 U	2.2 U	2.2 U
SILVER, TOTAL	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	3880	479000	55000	7030
VANADIUM, TOTAL	0.8 U	0.8 U	0.8 U	0.8 U
ZINC, TOTAL	0.71	1.4	2.5	37
WET CHEMISTRY (mg/l)				
TOTAL DISSOLVED SOLIDS	120	1600	500	130
TOTAL SUSPENDED SOLIDS	4 U	12	19	5

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

TABLE 8

TREATMENT SYSTEM SAMPLING RESULTS
THIRD CALENDAR QUARTER, 1997
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Contaminant	July 17, 1997				August 27, 1997				September 17, 1997			
	Shallow Aquifer Influent	Deep Aquifer Influent	Air Stripper Effluent	Final Effluent	Shallow Aquifer Influent	Deep Aquifer Influent	Air Stripper Effluent	Final Effluent	Shallow Aquifer Influent	Deep Aquifer Influent	Air Stripper Effluent	Final Effluent
Volatiles												
1,2-Dichloroethane	<10	<10	<0.2	<0.2	<100	<100	<1.0	<1.0	<1.0	<500	<1.0	<1.0
trans-1,2-Dichloroethene	250	1,900	<1.0	<1.0	790	1,900	<1.0	<1.0	210	2,000	<1.0	<1.0
Tetrachloroethene	120	40	<0.4	<0.4	410	<1.0	<1.0	<1.0	150	<500	<1.0	<1.0
Trichloroethene	1,100	12,000	<1.0	49	3,300	12,000	1.2	55	1,300	11,000	<1.0	<1.0
Vinyl Chloride	<20	170	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<500	<1.0	<1.0
Ethylbenzene	<50	<50	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Total Metals												
Arsenic	<1.9	2.3	<1.9	<1.9	<600**	<600**	<600**	<600**	<600**	<600**	<600**	<600**
Barium	9.7	27.9	11.2	12.9	51.1	<20	<20	<20	25.2	<20	<20	<20
Beryllium	<0.3	<0.3	<0.3	<0.3	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Chromium	<4.9	<4.9	<4.9	<4.9	<70	<70	<70	<70	<70	<70	<70	<70
Lead	8.6	4.1	1.6	2.6	<500**	<500**	<500**	<500**	<500**	<500**	<500**	500**
Manganese	13.1	28.3	12.2	1.5	45.5	<20	<20	<20	37.6	<20	<20	<20
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.322	<0.2	<0.213	<2.0	<2.0	<0.2	0.489
Vanadium	<4.8	<4.8	<4.8	<4.8	<80	<80	<80	<80	<80	<80	<80	<80
Wet Chemistry												
Total Dissolved Solids	97	172	NA	196	70	185	NA	175	85	160	NA	70
Total Suspended Solids	<1.0	<1.0	NA	<1.0	<10	<10	NA	<10	<10	<10	NA	<10
pH	6.5	7.70	NA	8.21	6.7	7.10	NA	7.4	6.4	7.0	NA	7.5

Notes:

Volatile and Metal concentrations reported in micrograms per liter (µg/L) or parts per billion.
Wet chemistry concentrations reported in milligrams per liter (mg/L) or parts per million.
NA = Not analyzed or not available.
** Lead and arsenic samples are being re-analyzed by GFAA for lower detection limits.

FIGURES

LEGEND

GW08
⊕ Shallow Monitoring Well Location

GW27DW
◎ Deep Monitoring Well Location

NOTE:

1. Figure depicts all monitoring wells at Sites 6 and 82

Scale

500 0 500 1000 1500 Feet

N
W E
S

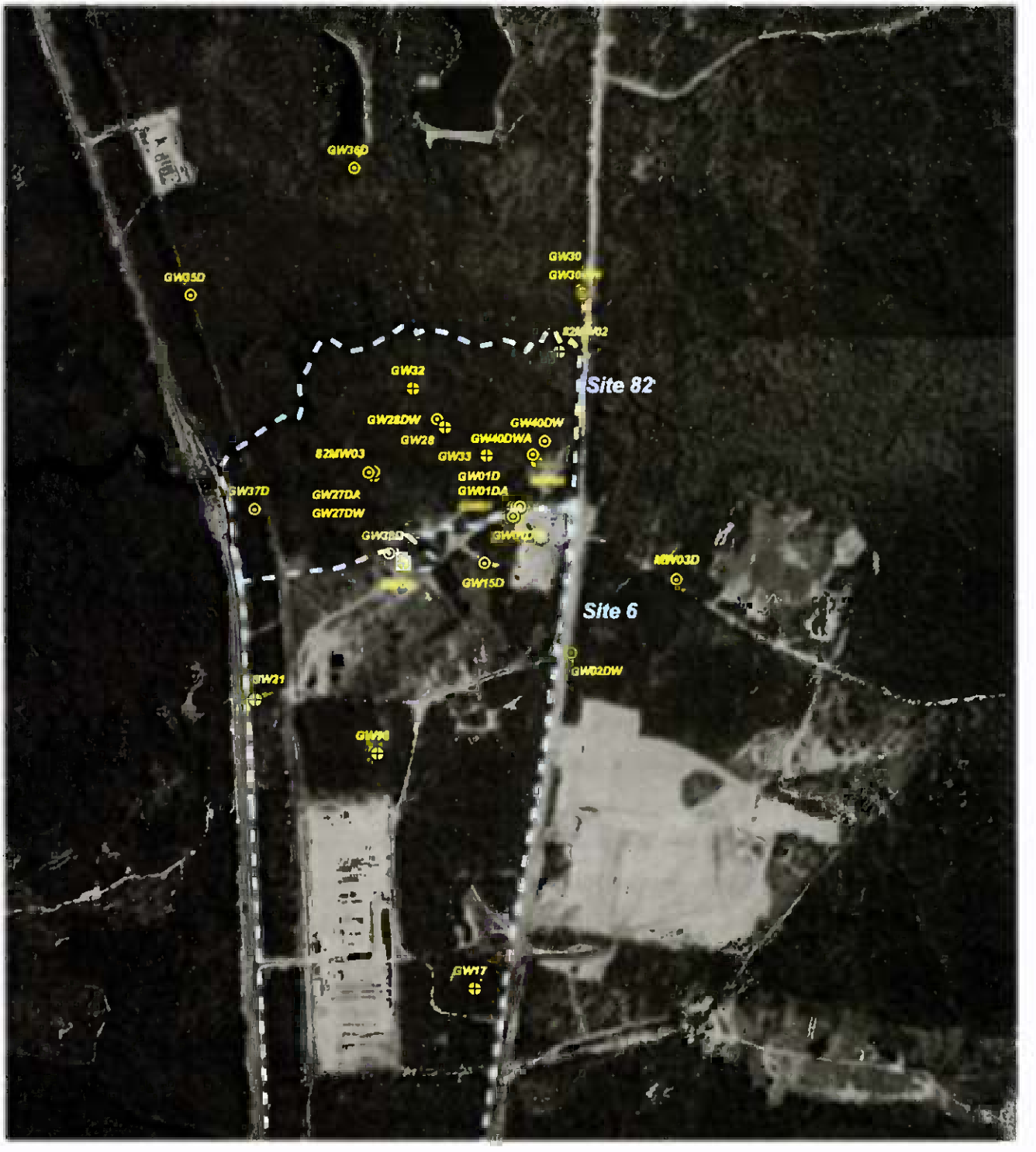
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

Monitoring Well Location Map
Operable Unit No. 2 - Sites 6 and 82
Monitoring and O&M Support
CTO-0367

Baker

FIGURE 1

0178IJJBIY



LEGEND

GW08 ⊕ Shallow Monitoring Well Location

GW27DW ◎ Deep Monitoring Well Location

NOTE:

1. Figure depicts monitoring wells included in the Monitoring Program at Sites 6 and 82

Scale

600 0 600 1200 1800 Feet

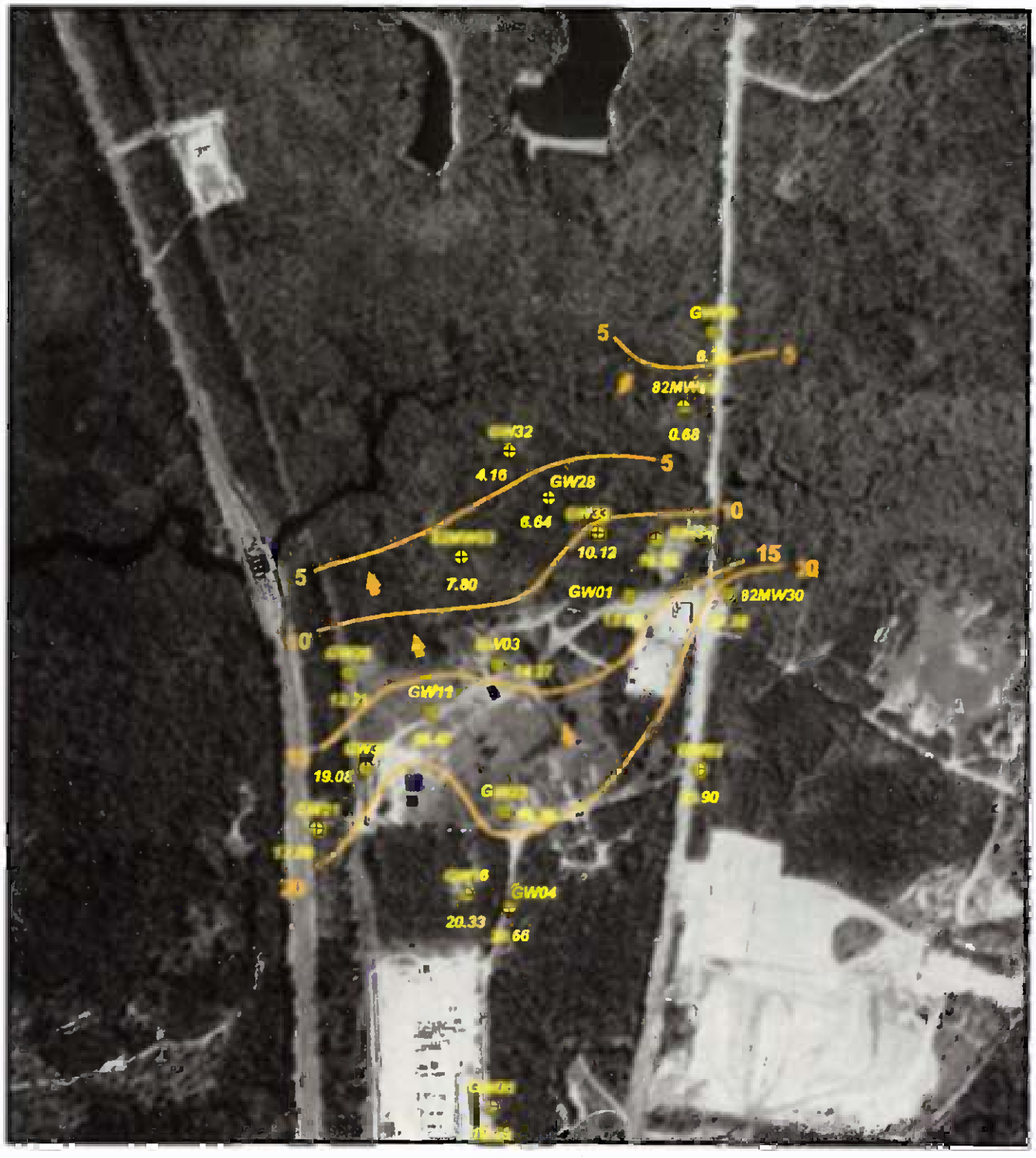
N W E S

MARINE CORPS BASE, CAMP LEJEUNE NORTH CAROLINA

Long-Term Monitoring Well Location Map
Operable Unit No. 2 - Sites 6 and 82
Monitoring and O&M Support
CTO-0367

Baker

FIGURE 2



LEGEND

GW08 / 0.00 — Shallow Monitoring Well Location with Static Groundwater Elevation

Groundwater Elevation Contour

Approximate Direction of Groundwater Flow

NOTES:

1. Static readings collected on August 5, 1997
2. Contours expressed in feet above mean sea level

Scale

500 0 500 1000 1500 Feet

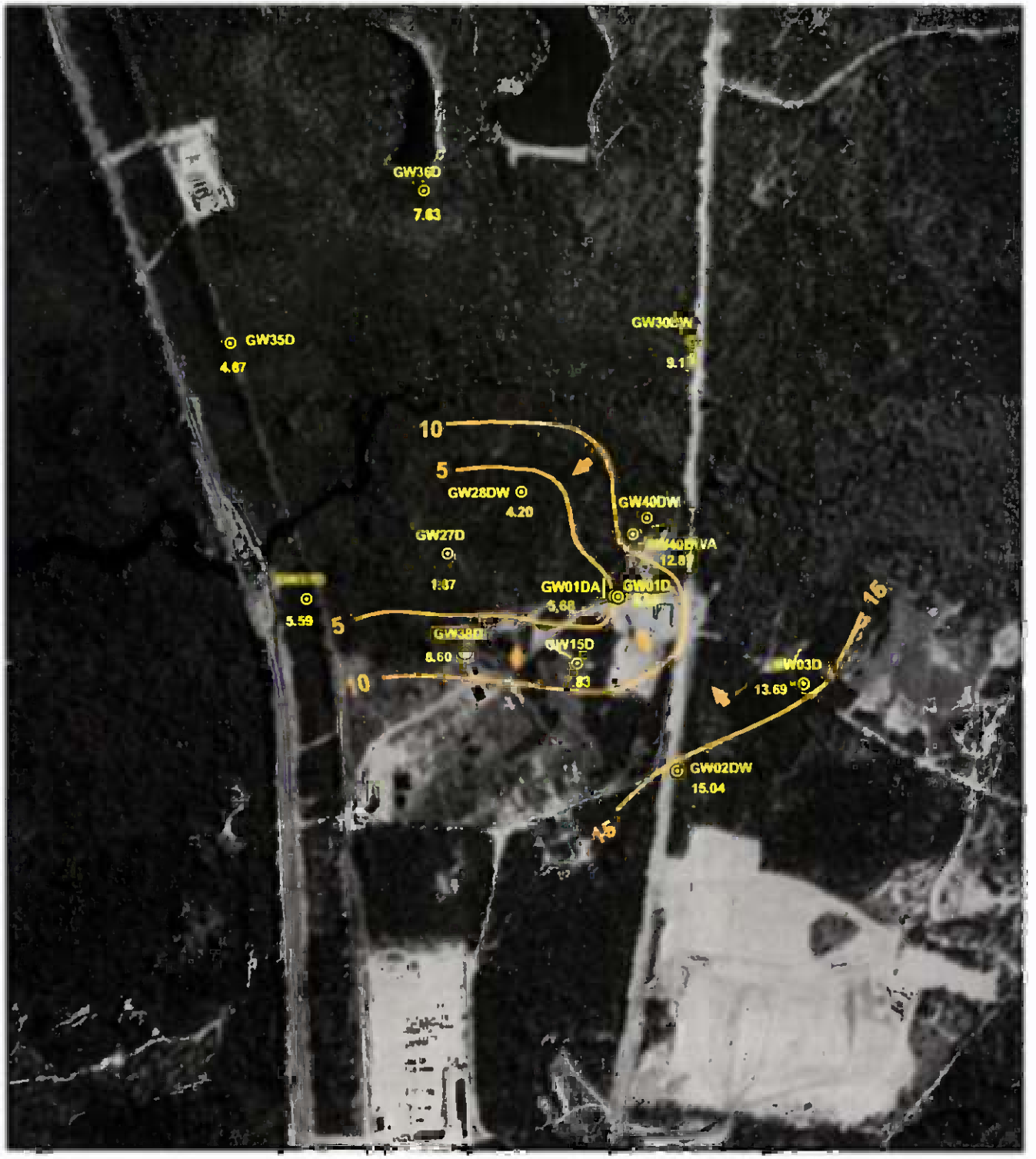
N W E S

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

Shallow Groundwater Contour Map
Operable Unit No. 2 - Sites 6 and 82
Monitoring and O&M Support
CTO-0367

Baker

FIGURE 3



LEGEND

GW27D 0.00 — Deep Monitoring Well Location with Static Groundwater Elevation

Groundwater Elevation Contour

Approximate Direction of Groundwater Flow

NOTES:

1. Static readings collected on August 5, 1997
2. Contours expressed in feet above mean sea level

Scale

500 0 500 1000 1500 Feet

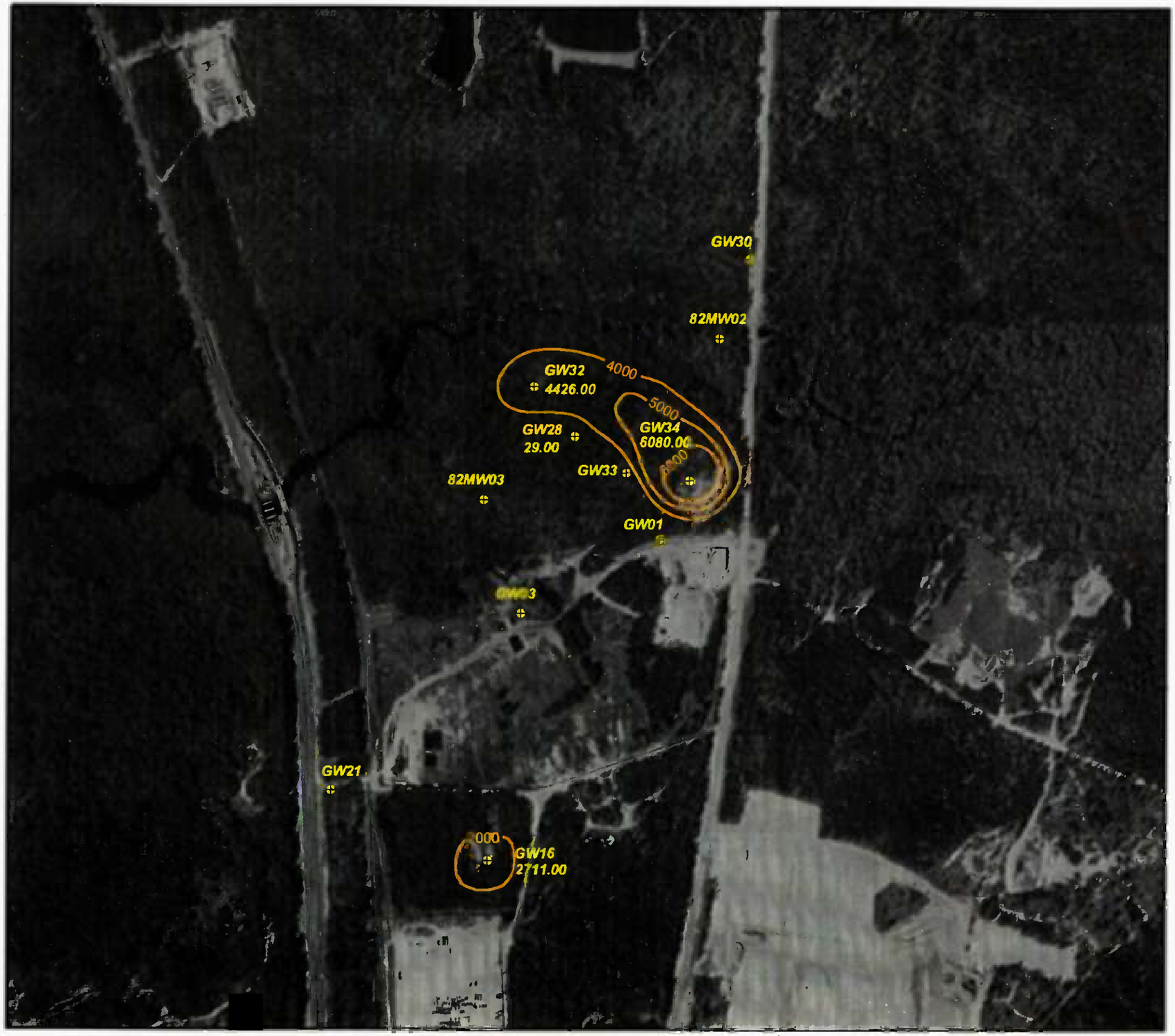
N W E S

MARINE CORPS BASE, CAMP LEJEUNE NORTH CAROLINA

Deep Groundwater Contour Map
Operable Unit No. 2 - Sites 6 and 82
Monitoring and O&M Support
CTO-0367

Baker

FIGURE 4



LEGEND

GW08 ⊕ 4426.00 — Shallow Monitoring Well Location with Total VOC Concentration

Estimated Extent of Contaminant Concentrations

NOTES:

1. Concentrations presented in micrograms per liter

Scale

500 0 500 1000 Feet

N W E S

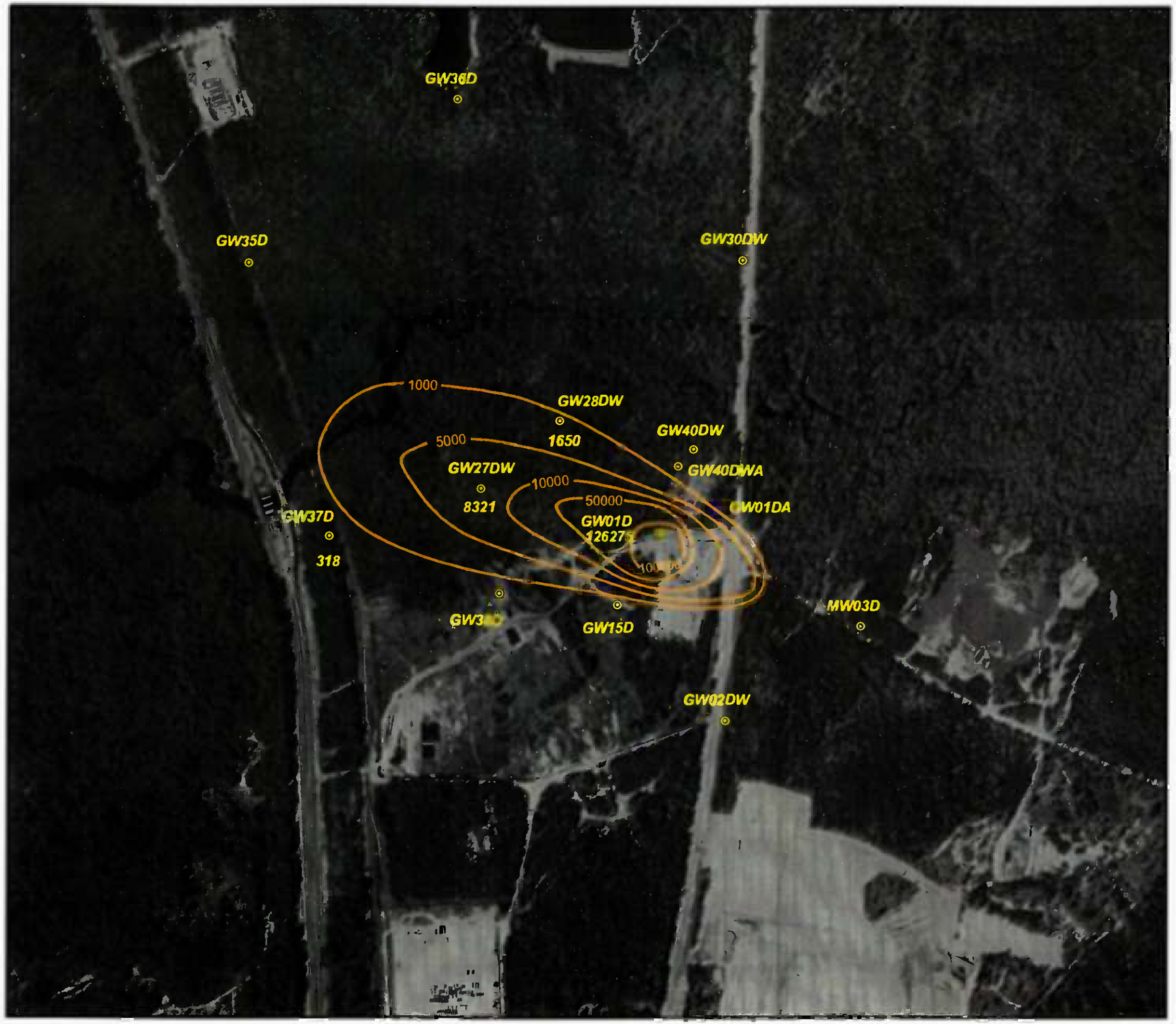
Loc ID	Parameter	Result	Units	Date
IR06-GW34	TRICHLOROETHENE	310	UG/L	07/24/97
	TETRACHLOROETHENE	170	UG/L	07/24/97
	1,1,2,2--TETRACHLOROETHANE	5600	UG/L	07/24/97
IR06-GW28	TRICHLOROETHENE	22	UG/L	07/25/97
	TETRACHLOROETHENE	7	UG/L	07/25/97
IR06-GW16	CHLOROBENZENE	2700	UG/L	07/27/97
	1,1,2,2-TETRACHLOROETHANE	11	UG/L	07/27/97
IR06-GW32	VINYL CHLORIDE	16	UG/L	07/27/97
	TETRACHLOROETHENE	110	UG/L	07/27/97
	1,2-DICHLOROETHENE (TOTAL)	1500	UG/L	07/27/97
	TRICHLOROETHENE	2800	UG/L	07/27/97

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

Volatile Organic Compounds in Shallow Groundwater
Operable Unit No. 2 - Sites 6 and 82
Monitoring and O&M Support
CTO-0367

Baker

FIGURE 5



LEGEND

GW28DW ◎ 1650 Deep Monitoring Well Location with Total VOC Concentration

Estimated Extent of Contaminant Concentrations

NOTES:

1. Concentrations presented in micrograms per liter

Scale

300 0 300 600 900 1200 Feet

N
W E
S

Loc ID	Parameter	Result	Units	Date
IR06-GW27DW	1,1-DICHLOROETHENE	11	UG/L	07/22/97
	VINYL CHLORIDE	110	UG/L	07/22/97
	TRICHLOROETHENE	3400	UG/L	07/22/97
	1,2-DICHLOROETHENE (TOTAL)	4800	UG/L	07/22/97
IR06-GW37D	TRICHLOROETHENE	88	UG/L	07/23/97
	1,2-DICHLOROETHENE (TOTAL)	230	UG/L	07/23/97
IR06-GW28DW	1,2-DICHLOROETHENE (TOTAL)	550	UG/L	07/25/97
	TRICHLOROETHENE	1100	UG/L	07/25/97
IR06-GW01D	METHYLENE CHLORIDE	8	UG/L	07/26/97
	VINYL CHLORIDE	320	UG/L	07/26/97
	1,1-DICHLOROETHENE	57	UG/L	07/26/97
	TETRACHLOROETHENE	890	UG/L	07/26/97
	1,2-DICHLOROETHENE (TOTAL)	28000	UG/L	07/26/97
	TRICHLOROETHENE	97000	UG/L	07/26/97

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

Volatile Organic Compounds in
Deep Groundwater
Operable Unit No. 2 - Sites 6 and 82
Monitoring and O&M Support
CTO-0367

Baker

FIGURE 6

LEGEND

GW08 ⊕ Shallow Monitoring Well Location

GW27D ◎ Deep Monitoring Well Location

NOTES:

1. NCWQS = North Carolina Water Quality Standard
2. P_MCL = Primary Federal Maximum Contaminant Level
3. S_MCL ⊟ Secondary Federal Maximum Contaminant Level
4. Concentrations presented in micrograms per liter.

NE = Not Established

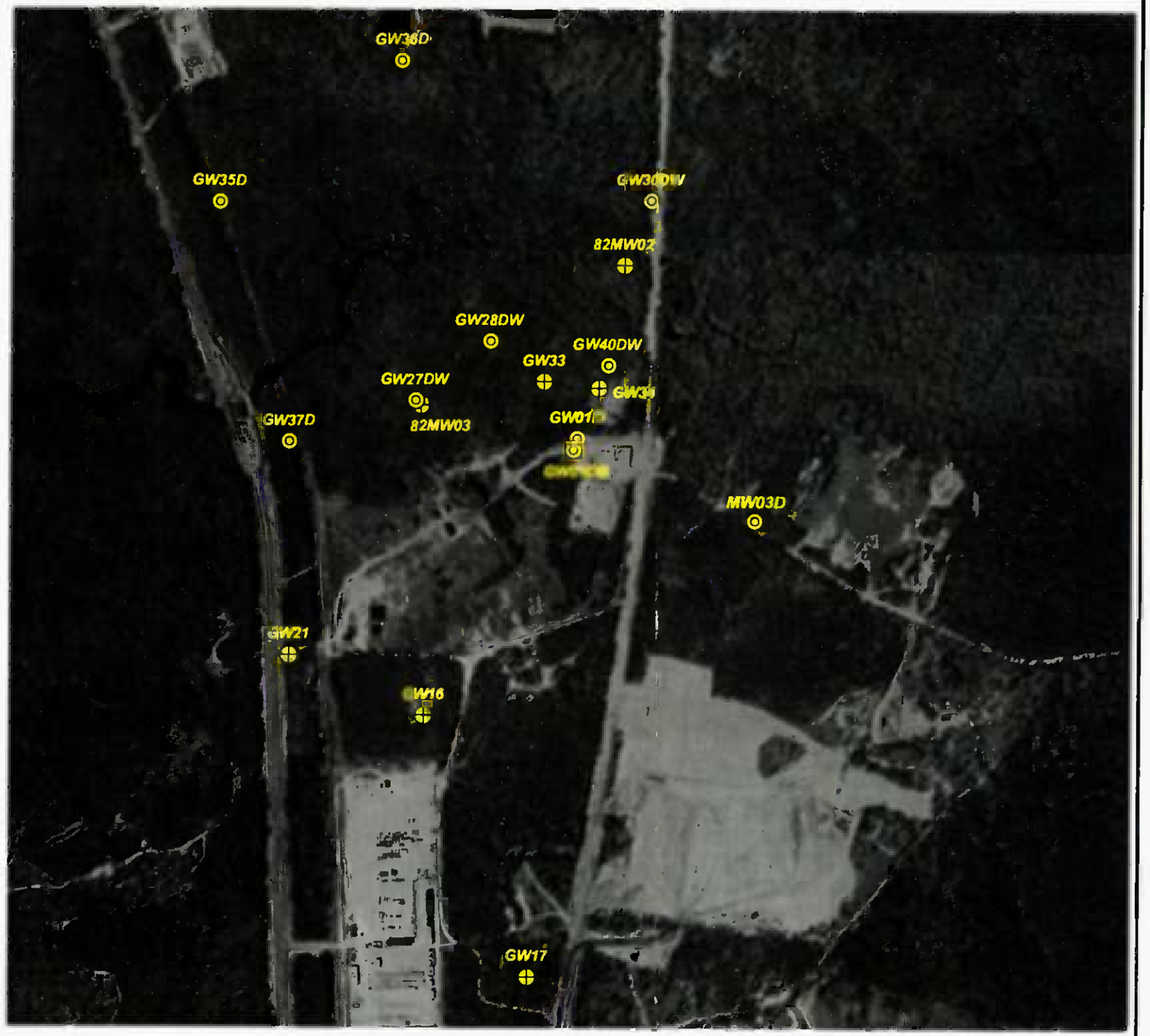
Scale

500 0 500 1000 1500 Feet

N

W E

S



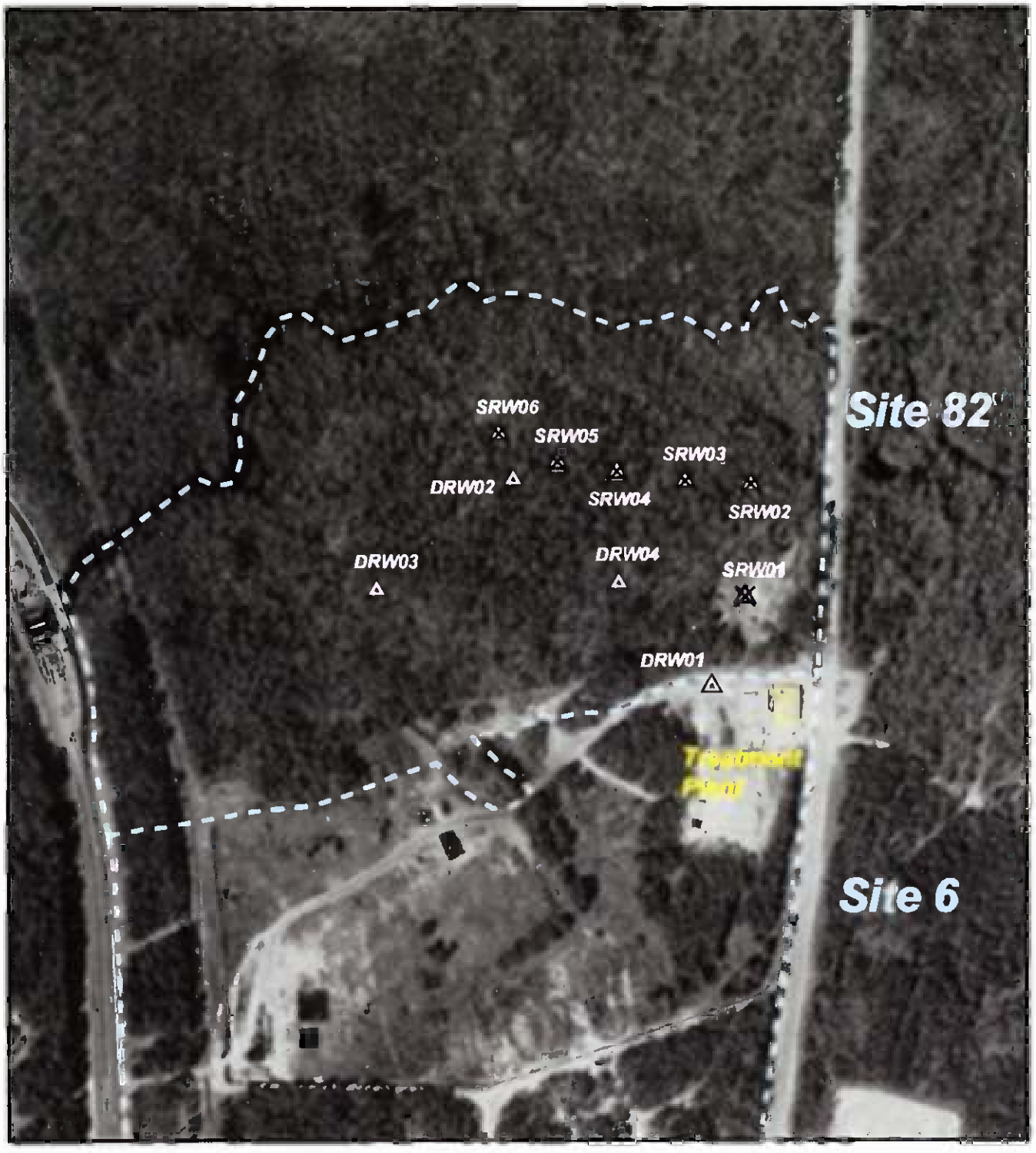
Location ID	Date	Units	Parameter	Result	NCWQS	P_MCL	S_MCL
IR06-GW27DW	07/22/97	UG/L	IRON	438	300	NE	300
IR06-GW37D	07/23/97	UG/L	IRON	726	300	NE	300
IR06-GW30DW	07/24/97	UG/L	IRON	984	300	NE	300
IR06-GW40DW	07/24/97	UG/L	IRON	612	300	NE	300
IR06-GW34	07/24/97	UG/L	ALUMINUM	722	NE	NE	200
IR06-GW28DW	07/25/97	UG/L	IRON	569	300	NE	300
IR06-GW01DB	07/25/97	UG/L	ALUMINUM	242	NE	NE	200
IR06-GW01D	07/26/97	UG/L	IRON	902	300	NE	300
	07/26/97	UG/L	SILVER	1.6	18	0.1	NE
IR06-GW17	07/27/97	UG/L	ALUMINUM	1900	NE	NE	200
	07/27/97	UG/L	IRON	1210	300	NE	300
IR06-GW16	07/27/97	UG/L	ALUMINUM	631	NE	NE	200
	07/27/97	UG/L	IRON	1660	300	NE	300
	07/27/97	UG/L	MANGANESE	88.2	50	NE	50
IR06-GW35D	07/27/97	UG/L	IRON	499	300	NE	300
IR06-GW36D	07/27/97	UG/L	IRON	496	300	NE	300
IR06-MW03D	07/27/97	UG/L	ALUMINUM	630	NE	NE	200
	07/27/97	UG/L	IRON	996	300	NE	300
IR06-GW21	07/27/97	UG/L	ALUMINUM	243	NE	NE	200
IR06-GW33	07/27/97	UG/L	ALUMINUM	770	NE	NE	200
	07/27/97	UG/L	IRON	427	300	NE	300
IR06-82MW02	07/27/97	UG/L	ALUMINUM	486	NE	NE	200
	07/27/97	UG/L	IRON	5740	300	NE	300
IR06-82MW03	07/23/97	UG/L	ALUMINUM	5280	NE	NE	200
	07/23/97	UG/L	IRON	3440	300	NE	300
	07/23/97	UG/L	MANGANESE	122	50	NE	50

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

Metals in Groundwater
above Screening Standards
Operable Unit No. 2 - Sites 6 and 82
Monitoring and O&M Support
CTO-0367

Baker

FIGURE 7



LEGEND

SRW05 — Shallow Recovery Well Location

DRW05 — Deep Recovery Well Location

Scale

200 0 200 400 600 Feet

N
W E
S

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

Installed Treatment System
Operable Unit No. 2 - Sites 6 and 82
Monitoring and O&M Support
CTO-0367

Baker

FIGURE 8

ATTACHMENTS

ATTACHMENT A
WELL DEVELOPMENT RECORDS

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6 GW 01

DATE: 7-21-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1615
TIME FINISH	1805
INITIAL WATER LEVEL (FT)	20.88
TOTAL WELL DEPTH (TD)	25
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	0.68 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	110 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1615	0	6.05	NA	244	20.6	NA	BROWN
1630	5	5.75	NA	159	20.8	NA	BROWN
1645	10	5.89	NA	149	20.2	NA	
1705	20	5.44	NA	136	20.8	NA	
1725	30	5.78	NA	143	20.7	NA	LT. BROWN
1745	40	5.50	NA	137	17.8	NA	
1805	50	5.79	NA	144	17.6	NA	LT. BROWN

NA - NOT ANAYZED

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6GW01D

DATE: 7-21-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START 1615
TIME FINISH 1900
INITIAL WATER LEVEL (FT) 27.58
TOTAL WELL DEPTH (TD) 112
WELL DIAMETER (INCHES) 4.0
CALCULATED WELL VOLUME 55.12
BOREHOLE DIAMETER (INCHES)
BOREHOLE VOLUME
AMOUNT OF WATER ADDED DURING DRILLING
DEVELOPMENT METHOD
PUMP TYPE WATERRA
TOTAL TIME (A) 165 MIN
AVERAGE FLOW (GPM)(B)
TOTAL ESTIMATED WITHDRAWAL AxB=
HNU/OVA READING

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1615	0	7.03	NA	724	22.6	NA	CLEAR
1640	19	6.40	NA	695	20.7	NA	
1705	38	6.51	NA	692	20.7	NA	
1727	55	6.92	NA	713	20.7	NA	
1751	74	6.39	NA	696	20.0	NA	
1815	93	6.49	NA	696	19.6	NA	
1831	110	6.72	NA	705	19.7	NA	
1900	129	6.94	NA	714	20.0	NA	CLEAR

NA - NOT ANALYZED

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6GW010A

DATE: 7-23-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	0825
TIME FINISH	1115
INITIAL WATER LEVEL (FT)	30.25
TOTAL WELL DEPTH (TD)	230
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	32.55 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	170 Min
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
0825	0	6.43	NA	322	23.5	NA	CLEAR
0900	19	7.75	NA	307	21.0	NA	
0937	40	7.87	NA	303	20.5	NA	
1000	55	8.00	NA	312	21.1	NA	
1032	74	7.82	NA	296	20.3	NA	
1105	93	8.00	NA	304	20.3	NA	
1115	110	7.98	NA	306	20.4	NA	CLEAR

NA - NOT ANALYZED

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6 GW 01DB

DATE: 7-23-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START 0830
TIME FINISH 1125
INITIAL WATER LEVEL (FT) 29.45
TOTAL WELL DEPTH (TD) 263
WELL DIAMETER (INCHES) 2.0
CALCULATED WELL VOLUME 38.06 GAL
BOREHOLE DIAMETER (INCHES)
BOREHOLE VOLUME
AMOUNT OF WATER ADDED DURING DRILLING
DEVELOPMENT METHOD
PUMP TYPE WATERRA
TOTAL TIME (A) 175 MIN
AVERAGE FLOW (GPM)(B)
TOTAL ESTIMATED WITHDRAWAL AxB=
HNU/OVA READING

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
0830	0	10.46	NA	467	22.1	NA	CLEAR
0920	38	8.52	NA	1149	21.9	NA	CLOUDY
1005	55	8.70	NA	1158	22.3	NA	
1032	74	8.60	NA	1104	22.1	NA	
1105	93	8.74	NA	1111	22.4	NA	
1125	110	8.78	NA	1125	22.7	NA	CLOUDY

NA - NOT ANALYZED

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6 GW02D

DATE: 7-22-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START: 1534
TIME FINISH: 1717
INITIAL WATER LEVEL (FT): 22.65
TOTAL WELL DEPTH (TD): 119.6
WELL DIAMETER (INCHES): 4.0
CALCULATED WELL VOLUME: 63.34
BOREHOLE DIAMETER (INCHES):
BOREHOLE VOLUME:
AMOUNT OF WATER ADDED DURING DRILLING:
DEVELOPMENT METHOD:
PUMP TYPE: WATERRA
TOTAL TIME (A): 103 MIN
AVERAGE FLOW (GPM)(B):
TOTAL ESTIMATED WITHDRAWAL AxB=:
HNU/OVA READING:

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1534	0	6.90	NA	271	21.5	NA	ORANGE
1553	19	7.18	NA	284	20.9	NA	CLOUDY
1618	55	7.49	NA	288	20.2	NA	CLEAR
1632	74	7.71	NA	283	20.7	NA	
1650	93	7.29	NA	284	20.2	NA	
1700	110	7.49	NA	285	20.4	NA	
1717	129	7.37	NA	283	20.0	NA	CLEAR

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6GW03

DATE: 7-21-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START: 1215
TIME FINISH: 1355
INITIAL WATER LEVEL (FT): 16.79
TOTAL WELL DEPTH (TD): 25
WELL DIAMETER (INCHES): 2.0
CALCULATED WELL VOLUME: 1.33 GAL.
BOREHOLE DIAMETER (INCHES)
BOREHOLE VOLUME
AMOUNT OF WATER ADDED DURING DRILLING
DEVELOPMENT METHOD
PUMP TYPE: WATERRA
TOTAL TIME (A): 100 MIN
AVERAGE FLOW (GPM)(B)
TOTAL ESTIMATED WITHDRAWAL AxB=
HNU/OVA READING

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1215	0	5.88	NA	272	21.9	NA	BROWN
1226	5	5.88	NA	259	21.3	NA	
1235	10	5.75	NA	254	21.1	NA	
1245	15	5.84	NA	264	21.1	NA	
1305	25	5.63	NA	264	20.5	NA	LT. BROWN
1325	35	5.90	NA	255	21.0	NA	CLOUDY
1345	45	5.80	NA	252	21.8	NA	
1355	55	5.92	NA	262	21.0	NA	CLOUDY

NA - NOT ANALYZED

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470 -367 WELL NO.: 6 GW03D

DATE: 7-22-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1345
TIME FINISH	1415
INITIAL WATER LEVEL (FT)	21.45
TOTAL WELL DEPTH (TD)	120
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	16.06
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	30 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1345	19.8	6.34	NA	241	19.8	NA	LT. GRAY
1355	18.9	6.88	NA	239	18.9	NA	CLOUDY
1405	18.8	6.82	NA	238	18.8	NA	CLEAR
1415	19.0	6.94	NA	236	19.0	NA	CLEAR

NA - NOT ANALYZED

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: G2470-367 WELL NO.: 6 GW15D

DATE: 7-23-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START 1515
TIME FINISH 1555
INITIAL WATER LEVEL (FT) 20.68
TOTAL WELL DEPTH (TD) 157.4
WELL DIAMETER (INCHES) 2.0
CALCULATED WELL VOLUME 22.28
BOREHOLE DIAMETER (INCHES)
BOREHOLE VOLUME
AMOUNT OF WATER ADDED DURING DRILLING
DEVELOPMENT METHOD
PUMP TYPE WATERRA
TOTAL TIME (A) 40 MIN
AVERAGE FLOW (GPM)(B)
TOTAL ESTIMATED WITHDRAWAL AxB=
HNU/OVA READING

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1515	0	8.58	NA	215	19.8	NA	cloudy
1525	19	8.15	NA	204	19.1	NA	
1535	38	7.94	NA	205	18.9	NA	
1545	55	7.80	NA	200	19.2	NA	
1555	74	7.77	NA	203	19.2	NA	cloudy

NA - NOT ANALYZED

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470 - 367 WELL NO.: 6 GW 16

DATE: 7-24-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1200
TIME FINISH	1300
INITIAL WATER LEVEL (FT)	7.55
TOTAL WELL DEPTH (TD)	20.5
WELL DIAMETER (INCHES)	4.0
CALCULATED WELL VOLUME	8.45 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	60 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1200	0	5.53	NA	167	21.0	NA	BROWN
1210	10	5.40	NA	154	19.4	NA	CLOUDY
1220	20	5.33	NA	158	19.9	NA	CLOUDY
1230	30	5.33	NA	158	19.5	NA	ALMOST CLEAR
1240	40	5.29	NA	157	19.5	NA	CLEAR
1250	50	5.28	NA	161	19.3	NA	CLEAR
1300	60	5.26	NA	161	19.3	NA	CLEAR

NA- NOT ANALYZED

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6 GW17

DATE: 7-24-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1015
TIME FINISH	1105
INITIAL WATER LEVEL (FT)	7.8
TOTAL WELL DEPTH (TD)	20
WELL DIAMETER (INCHES)	4.0
CALCULATED WELL VOLUME	7.96 GAL
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	50 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1015	0	6.89	NA	300	18.7	NA	CLOUDY
1025	10	6.50	NA	218	18.4	NA	LT. GRAY
1035	20	6.05	NA	191	18.2	NA	
1045	30	5.87	NA	184	18.2	NA	
1055	40	5.78	NA	177	18.4	NA	CLOUDY
1105	50	5.66	NA	172	18.3	NA	CLOUDY

NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6 GW21

DATE: 7-22-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1755
TIME FINISH	1831
INITIAL WATER LEVEL (FT)	13.1
TOTAL WELL DEPTH (TD)	24.8
WELL DIAMETER (INCHES)	4.0
CALCULATED WELL VOLUME	7.64 GAL
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	36 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1755	0	7.64	NA	96	19.9	NA	Cloudy
1803	10	6.44	NA	84	19.0	NA	
1808	20	5.88	NA	87	20.3	NA	
1814	30	5.60	NA	78	18.9	NA	
1820	40	5.37	NA	76	19.1	NA	CLEAR
1825	50	5.24	NA	76	18.9	NA	
1831	60	5.08	NA	76	18.8	NA	CLEAR

NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6GW27D

DATE: 7-19-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	0942
TIME FINISH	1222
INITIAL WATER LEVEL (FT)	23.36
TOTAL WELL DEPTH (TD)	110
WELL DIAMETER (INCHES)	4.0
CALCULATED WELL VOLUME	56.57 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	160 MIN.
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
0942	0	7.51	NA	245	20.1	NA	GRAY
1003	17	7.95	NA	242	19.1	NA	CLEAR
1051	38	8.14	NA	245	19.7	NA	
1135	55	7.30	NA	241	19.3	NA	
1148	75	7.14	NA	238	19.1	NA	
1222	95	8.02	NA	248	19.4	NA.	CLEAR

NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6GW27DA

DATE: 7-19-97

GEOLOGIST/ENGINEER: KENNETH A. TWA

TIME START	0915
TIME FINISH	1315
INITIAL WATER LEVEL (FT)	21.60
TOTAL WELL DEPTH (TD)	238
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	35.27 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	194 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
0915	0	8.85	NA	449	20.6	NA	GRAY
0942	20	9.12	NA	498	20.7	NA	BROWN
1005	30	9.23	NA	496	21.1	NA	BROWN
1050 TO 1136	NO PUMPING		NA				
1208	50	8.71	NA	511	21.5	NA	YELLOW TINT
1230	70	8.98	NA	659	22.6	NA	CLEAR
1258	95	8.27	NA	654	23.0	NA	CLEAR
1315	105	8.14	NA	644	22.9	NA	CLEAR

1050 TO 1136 NO PUMPING. PUMP MALFUNCTION.
NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6GW28S

DATE: 7-21-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	0750
TIME FINISH	0850
INITIAL WATER LEVEL (FT)	22.92
TOTAL WELL DEPTH (TD)	34.14
WELL DIAMETER (INCHES)	4.0
CALCULATED WELL VOLUME	7.32 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	60 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
0750	0	6.46	NA	99	18.6	NA	CLOUDY
0800	7	6.68	NA	95	21.0	NA	
0822	14	5.32	NA	87	18.5	NA	
0838	21	5.58	NA	88	18.6	NA	CLEAR
0850	28	5.05	NA	88	19.2	NA	CLEAR

NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6 GW 28D

DATE: 7-21-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	0758
TIME FINISH	1100
INITIAL WATER LEVEL (FT)	22.93
TOTAL WELL DEPTH (TD)	117.50
WELL DIAMETER (INCHES)	4.0
CALCULATED WELL VOLUME	61.75 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	180 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
0758	0	6.25	NA	253	19.4	NA	RED TINT
0829	19	6.10	NA	255	20.2	NA	CLOUDY
0912	38	6.04	NA	259	20.9	NA	CLEAR
0933	55	6.72	NA	262	21.5	NA	
1020	74	7.11	NA	268	22.9	NA	
1100	93	7.22	NA	267	23.1	NA	CLEAR

NA- NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6 GW 305

DATE: 7-20-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START 1510
TIME FINISH 1720
INITIAL WATER LEVEL (FT) 6.65
TOTAL WELL DEPTH (TD) 21.8
WELL DIAMETER (INCHES) 4.0
CALCULATED WELL VOLUME 9.89 GAL.
BOREHOLE DIAMETER (INCHES)
BOREHOLE VOLUME
AMOUNT OF WATER ADDED DURING DRILLING
DEVELOPMENT METHOD
PUMP TYPE WATERRA
TOTAL TIME (A) 130 MIN
AVERAGE FLOW (GPM)(B)
TOTAL ESTIMATED WITHDRAWAL AxB=
HNU/OVA READING

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1510	0	6.10	NA	187	21.7	NA	GRAY
1545	10	6.08	NA	158	20.7	NA	GRAY
1612	20	6.24	NA	148	20.6	NA	LT. GRAY
1648	30	5.71	NA	141	20.7	NA	CLOUDY
1720	40	5.66	NA	138	20.9	NA	CLOUDY

NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470 - 367 WELL NO.: 6 GW 30D

DATE: 7-20-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1510
TIME FINISH	1557
INITIAL WATER LEVEL (FT)	3.10
TOTAL WELL DEPTH (TD)	102
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	16.12 GAL
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	47 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1510	0	7.16	NA	314	19.7	NA	GRAY
1527	19	6.66	NA	297	18.6	NA	LT. GRAY
1545	38	7.07	NA	301	18.6	NA	GRAY TINT
1557	55	6.83	NA	302	18.4	NA	CLEAR

NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6 GW32

DATE: 7-22-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1118
TIME FINISH	1220
INITIAL WATER LEVEL (FT)	17.51
TOTAL WELL DEPTH (TD)	29
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	1.89 GAL
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	62 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1118	0	5.69	NA	201	18.5	NA	BROWN
1130	10	5.83	NA	177	18.5	NA	
1150	30	5.87	NA	182	18.3	NA	LT. BROWN
1200	40	5.89	NA	181	18.4	NA	CLOUDY
1210	50	5.92	NA	182	18.2	NA	ALMOST CLEAR
1220	60	5.93	NA	182	20.2	NA.	CLEAR

NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTA - CAMP LEJEUNE

CTO NO.: G2470-367 WELL NO.: 6GW33

DATE: 7-22-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	0933
TIME FINISH	1040
INITIAL WATER LEVEL (FT)	12.12
TOTAL WELL DEPTH (TD)	22.6
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	1.70 GAL
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	67 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
0933	0	4.16	NA	135	22.7	NA	RED
0950	10	3.87	NA	133	19.0	NA	BROWN
1000	20	3.84	NA	126	19.3	NA	LT. BROWN
1010	30	3.81	NA	132	19.1	NA	
1020	40	3.84	NA	133	18.7	NA	
1030	50	3.88	NA	133	18.6	NA	
1040	60	3.84	NA	133	18.7	NA	LT. BROWN

NA-NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6 GW 34

DATE: 7-22-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START 0755
TIME FINISH 0855
INITIAL WATER LEVEL (FT) 21.24
TOTAL WELL DEPTH (TD) 34.0
WELL DIAMETER (INCHES) 2.0
CALCULATED WELL VOLUME 2.07 GAL.
BOREHOLE DIAMETER (INCHES)
BOREHOLE VOLUME
AMOUNT OF WATER ADDED DURING DRILLING
DEVELOPMENT METHOD
PUMP TYPE WATERRA
TOTAL TIME (A) 60 MIN
AVERAGE FLOW (GPM)(B)
TOTAL ESTIMATED WITHDRAWAL AxB=
HNU/OVA READING

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
0755	0	4.64	NA	220	20.5	NA	BROWN
0805	10	4.16	NA	222	19.3	NA	
0814	20	4.17	NA	221	19.2	NA	
0825	30	4.03	NA	223	19.2	NA	
0835	40	4.05	NA	222	19.4	NA	
0845	50	4.24	NA	222	19.2	NA	LT. BROWN
0855	60	4.10	NA	219	19.2	NA	LT. BROWN

NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470 - 367 WELL NO.: 6GW35D

DATE: 7-20-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1014
TIME FINISH	1105
INITIAL WATER LEVEL (FT)	10.95
TOTAL WELL DEPTH (TD)	107
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	15.6 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	51 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1014	0	6.47	NA	316	22.9	NA	LT. GRAY
1031	19	6.91	NA	296	20.1	NA	LT. GRAY
1049	38	7.07	NA	317	20.4	NA	LT. GRAY
1105	55	7.13	NA	321	19.8	NA	CLEAR

NA - NOT ANALYZED

Baker
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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6 GW 36D

DATE: 7-23-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1745
TIME FINISH	1820
INITIAL WATER LEVEL (FT)	10.92
TOTAL WELL DEPTH (TD)	97.14
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	14.05
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	35 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1745	0	7.45	NA	306	18.5	NA	CLOUDY
1755	15	7.32	NA	299	18.3	NA	
1803	30	7.28	NA	300	18.1	NA	
1810	45	7.30	NA	300	18.2	NA	
1820	60	7.26	NA	299	18.5	NA	CLOUDY

NA - NOT ANALYZED

Baker
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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470 - 367 WELL NO.: 6GW37DW

DATE: 7-20-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START 1150
TIME FINISH 1237
INITIAL WATER LEVEL (FT) 10.80
TOTAL WELL DEPTH (TD) 87.3
WELL DIAMETER (INCHES) 2.0
CALCULATED WELL VOLUME 12.46 GAL
BOREHOLE DIAMETER (INCHES)
BOREHOLE VOLUME
AMOUNT OF WATER ADDED DURING DRILLING
DEVELOPMENT METHOD
PUMP TYPE WATERRA
TOTAL TIME (A) 47 MIN
AVERAGE FLOW (GPM)(B)
TOTAL ESTIMATED WITHDRAWAL AxB=
HNU/OVA READING

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1150	0	6.38	NA	214	22.4	NA	CLEAR
1211	19	6.32	NA	377	20.6	NA	CLEAR
1237	38	6.24	NA	335	22.7	NA	CLEAR

NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470 - 367 WELL NO.: 6GW38D

DATE: 7-21-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1215
TIME FINISH	1500
INITIAL WATER LEVEL (FT)	22.75
TOTAL WELL DEPTH (TD)	273
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	40.79 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	165 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1215	0	9.14	NA	805	22.2	NA	CLEAR
1235	19	8.58	NA	823	21.2	NA	
1308	38	8.68	NA	823	21.5	NA	
1323	55	8.38	NA	819	22.1	NA	
1350	74	8.78	NA	807	21.0	NA	
1420	93	8.84	NA	813	22.1	NA	
1445	110	8.76	NA	815	22.0	NA	
1500	120	8.81	NA	824	21.4	NA	CLEAR

NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470-367 WELL NO.: 6GW40DW

DATE: 7-19-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1535
TIME FINISH	1645
INITIAL WATER LEVEL (FT)	17.04
TOTAL WELL DEPTH (TD)	117.86
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	16.43 GAL
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	70 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1535	0	5.53	NA	325	21.3	NA	CLEAR
1555	19	5.52	NA	311	20.2	NA	
1616	38	5.52	NA	315	20.9	NA	
1630	55	5.50	NA	329	20.2	NA	
1645	74	5.53	NA	363	19.1	NA	CLEAR

NA - NOT ANALYZED

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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470 - 367 WELL NO.: 6GW40DWA

DATE: 7-19-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START 1526
TIME FINISH 1800
INITIAL WATER LEVEL (FT) 16.42
TOTAL WELL DEPTH (TD) 246
WELL DIAMETER (INCHES) 2.0
CALCULATED WELL VOLUME 37.42 GAL
BOREHOLE DIAMETER (INCHES)
BOREHOLE VOLUME
AMOUNT OF WATER ADDED DURING DRILLING
DEVELOPMENT METHOD
PUMP TYPE WATERRA
TOTAL TIME (A) 154 MIN
AVERAGE FLOW (GPM)(B)
TOTAL ESTIMATED WITHDRAWAL AxB=
HNU/OVA READING

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1526	0	5.58	NA	2639	26.3	NA	CLEAR
1610	19	5.52	NA	2626	21.4	NA	
1630	38	5.50	NA	2580	21.3	NA	
1707	55	5.61	NA	2644	22.0	NA	
1800	74	5.63	NA	2626	21.0	NA	CLEAR

NA - NOT ANALYZED

Baker
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FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470 - 367 WELL NO.: 82 MW 02

DATE: 7-24-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	0820
TIME FINISH	0920
INITIAL WATER LEVEL (FT)	5.5
TOTAL WELL DEPTH (TD)	15.5
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	1.63
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	60 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
0820	0	6.24	NA	717	18.8	NA	BLACK
0840	5	5.94	NA	707	18.0	NA	DK. BROWN
0900	10	5.95	NA	689	18.2	NA	BROWN
0920	15	6.03	NA	705	18.1	NA	LT. BROWN

NA - NOT ANALYZED

Baker
Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: LTM - CAMP LEJEUNE

CTO NO.: 62470 - 367 WELL NO.: 82 GW03

DATE: 7-19-97

GEOLOGIST/ENGINEER: KENNETH A. TUA

TIME START	1240
TIME FINISH	1345
INITIAL WATER LEVEL (FT)	16.24
TOTAL WELL DEPTH (TD)	21.0
WELL DIAMETER (INCHES)	2.0
CALCULATED WELL VOLUME	0.77 GAL.
BOREHOLE DIAMETER (INCHES)	
BOREHOLE VOLUME	
AMOUNT OF WATER ADDED DURING DRILLING	
DEVELOPMENT METHOD	
PUMP TYPE	WATERRA
TOTAL TIME (A)	65 MIN
AVERAGE FLOW (GPM)(B)	
TOTAL ESTIMATED WITHDRAWAL AxB=	
HNU/OVA READING	

DEVELOPMENT DATA

TIME	CUMULATIVE VOLUME (gallons)	pH	Dissolved O_2 (mL/L)	SPEC. COND. (µmhos/cm)	TEMP (°C)	TURBIDITY (N.T.U)	COLOR
1240	0	4.72	NA	221	20.4	NA	RED
1255	5	4.26	NA	210	20.1	NA	RED
1300	10	4.50	NA	196	20.6	NA	LT. RED
1315	20	4.25	NA	205	20.3	NA	BROWN
1330	30	3.87	NA	208	20.1	NA	BROWN
1345	40	3.71	NA	211	19.0	NA	BROWN

NA - NOT ANALYZED

ATTACHMENT B
CHAIN-OF-CUSTODY DOCUMENTATION

RECRA LabNet Use Only

COC# 367-0601

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client: Baker Environmental
Est. Final Proj. Sampling Date: 8-22-97
Project #: 367
Project Contact/Phone #: T. Trebilcock/412-269-3051
RECRA Project Manager: B. Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #

#/Type Container	Liquid	G							P		P					
	Solid															
Volume	Liquid															
	Solid															
Preservatives																

ANALYSES REQUESTED →

	ORGANIC							INORG								
	VOA	BNA	Pest/PCB	Herb				Metal	CN	TSS/TDS						Turn
RECRA LabNet Use Only																
IR06-GW27DW-97C	X							X		X						R
IR06-GW27DA-97C	X							X		X						R
IR82-GW03-97C	X							X		X						R
IR06-GW37D-97C	X							X		X						R
IR06-TB01-97C	X															R

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

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected
	IR06-GW27DW-97C				7-22	1810
	IR06-GW27DA-97C				7-23	0810
	IR82-GW03-97C				7-23	0935
	IR06-GW37D-97C				7-23	1430
	IR06-TB01-97C				7-23	1500

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Turn = Turn around time R = Routine
Shipped w/ COC # 367-7801
FedEx # 3558273795

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

RECRA LabNet Use Only

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

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

COC Record Present Upon Sample Rec't Y or N

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

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

Relinquished by	Received by	Date	Time

97P-1424

COC# 367-0602

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

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

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

ANALYSES REQUESTED →

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	ORGANIC: VOA	BNA	Pest/PCB	Herb					INORG: Metal	CN	TSS	TPS					TURN
								RECRA LabNet Use Only																
S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish		IR06-GW30DW-97C				7-24	1130	X								X		X	X					R
		IR06-GW30-97C				7-24	1110	X								X		X	X					R
		IR06-GW40DW-97C				7-24	1748	X								X		X	X					R
		IR06-GW34-97C				7-24	1750	X								X		X	X					R
		IR06-GW28DW-97C				7-25	0900	X								X		X	X					R
		IR06-GW28-97C				7-25	1325	X								X		X	X					R
		IR06-GW01DB-97C				7-25	1415	X																R
		IR06-GW40DWA-97C				7-25	1345	X																R
		IR06-TB02-97C				7-25	1500	X																

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
VOA = CLP Volatiles R = Routine
Turn = Turnaround time
FedEx # 3558274344
Shipped w/ COC# 367-7802

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

RECRA LabNet Use Only

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

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

COC Record Present Upon Sample Rec't Y or N

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

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

Relinquished by	Received by	Date	Time

97P-1424

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Page 1 of 1

Client Baker
Est. Final Proj. Sampling Date 8-22-97
Project # 367
Project Contact/Phone # Trebilcock 412-269-20
RECRA Project Manager Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #

#/Type Container	Liquid																
	Solid																
Volume	Liquid																
	Solid																
Preservatives																	

ANALYSES REQUESTED →

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

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

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected													
	IR06-GW01DB-97C				7-25	1415								X		X			R
	IR06-GW40DWA-97C				7-25	1345								X		X			R
	IR06-GW01-97C				7-26	1025	X							X		X			R
	IR06-GW01D-97C				7-26	1145	X							X		X			R
	IR06-GW01DA-97C				7-26	1250	X							X		X			R
	IR06-TB03-97C				7-25	1300	X												

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Turn = Turnaround R = Routine
Shipped w/ coc # 367-7803

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

RECRA LabNet Use Only

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

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

COC Record Present Upon Sample Rec't Y or N

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

Relinquished by	Received by	Date	Time
ZZ	FedEx	7-26-97	1400

Relinquished by	Received by	Date	Time

97P-1424

COC# 367-0604

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client Baker
Est. Final Proj. Sampling Date 8-22-97
Project # 367
Project Contact/Phone # Trebilcock 912-269-2051
RECRA Project Manager Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

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

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	ORGANIC VOA	BNA	Pest/PCB	Herb	INORG Metal	CN	TSS/TDS	Turn
								RECRA LabNet Use Only							
S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish		IR06-GW15D-97C			W	7/26	1735	X				X		X	R
		IR06-GW38D-97C			W	7/26	1740	X				X		X	R
		~~IR06-GW01-97C~~			~~W~~	~~7/26~~									(1)
		IR06-GW02DW-97C			W	7/27	0945	X				~~X~~		~~X~~ (2)	R
		IR06-GW03-97C			W	7/26	1525	X				X		X	R
		IR06-GW17-97C			W	7/27	1135	X				X		X	R
		IR06-GW16-97C			W	7/27	1530	X				X		X	R
		IR06-GW35D-97C			W	7/27	1830	X				X		X	R
		IR06-GW36D-97C			W	7/27	1145	X							R
		IR06-GW03D-97C			W	7/27	1515	X							R

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

Turn = Turnaround R = Routine
VOA = Volatiles by CLP

FedEx 5253135775

Shipped w/ coc # 367-7804

DATE/REVISIONS:

7.7. 1. Mistake
7.7 2. No Metals or TSS/TDS for Sample in this cooler
3. ____
4. ____
5. ____
6. ____

Relinquished by	Received by	Date	Time
7.7.	Fed Ex	7/28	1800

Relinquished by	Received by	Date	Time

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

RECRA LabNet Use Only

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

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

COC Record Present Upon Sample Rec't Y or N

COC # 367-0604

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

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

Refrigerator #

#/Type Container	Liquid																	
	Solid																	
Volume	Liquid																	
	Solid																	
Preservatives																		

ANALYSES REQUESTED →

MATRIX CODES: S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	ORGANIC: VOA	BNA	Pest/PCB	Herb			INORG: Metal	CN	TSS & TDS					Turn
								RECRA LabNet Use Only													
		IR06-GW21-97C			W	7/27	1730	X						X		X	(1)				R
		IR06-GW33-97C			W	7/27	1820	X													R
		IR06-GW32-97C			W	7/27	1900	X													R
		IR82-GW02-97C			W	7/27	2010	X													R
		IR06-TB04-97C			W	7/27	2030	X													

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

Turn = turn around R = Routine
VOA = Volatiles by CLP
Fed Ex 525313577 5
Shipped w/ coc # 367-7804

DATE/REVISIONS:
7.7.7 1. Metals & TSS/TDS [illegible]
2. Not Included for IR06-GW21-97C
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
7.7.7	Fed Ex	7/28	1800

Relinquished by	Received by	Date	Time

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

RECRA LabNet Use Only

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

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

COC # 367-0605

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Page ____ of ____

Client _____
Est. Final Proj. Sampling Date _____
Project # _____
Project Contact/Phone # _____
RECRA Project Manager _____
QC _____ Del _____ TAT _____
Date Rec'd _____ Date Due _____
Account # _____

Refrigerator #

#/Type Container	Liquid	Solid
Volume	Liquid	Solid
Preservatives		

ANALYSES REQUESTED →

ORGANIC: VOA | BNA | Pest/PCB | Herb
INORG: Metal | CN | TSS & TDS
Turn

RECRA LabNet Use Only

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

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	VOA	BNA	Pest/PCB	Herb			Metal	CN	TSS & TDS				Turn
	IR06-GW21-97C			W	7/27	1730							X		X				R
	IR06-GW33-97C			W	7/27	1820							X		X				R
	IR06-GW32-97C			W	7/27	1900							X		X				R
	IR82-GW02-97C			W	7/27	2010							X		X				R
	~~IR82-GW~~			~~W~~	~~7/27~~	~~2030~~													
	IR06-GW02DW-97C			W	7/27	0945							X		X				R
	IR06-GW36D-97C			W	7/27	1145							X		X				R
	IR06-GW03D-97C			W	7/27	1515							X		X				R

(1)

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

Turn = turnaround R = Routine
VOA = Volatiles by CLP
FedEx 5253135775
Shipped w/ COC # 367-0301

DATE/REVISIONS:

777 1. Mistake
2. _____
3. _____
4. _____
5. _____
6. _____

RECRA LabNet Use Only

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

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

COC Record Present Upon Sample Rec't Y or N

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

Relinquished by	Received by	Date	Time
777	Fed Ex	7/28	1800

Relinquished by	Received by	Date	Time

97P-1424

ATTACHMENT C
MONITORING PROGRAM ANALYTICAL RESULTS - JULY 1997

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MBC, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR06-GW01-97C	IR06-GW01D-97C	IR06-GW01DA-97C	IR06-GW01DB-97C	IR06-GW02DW-97C	IR06-GW03-97C
DATE SAMPLED	07/26/97	07/26/97	07/26/97	07/25/97	07/27/97	07/26/97
VOLATILES (ug/l)						
CHLOROMETHANE	10 U	10 U	10 U	10 U	10 U	10 U
VINYL CHLORIDE	10 U	320	10 U	10 U	10 U	10 U
BROMOMETHANE	10 U	10 U	10 U	10 U	10 U	10 U
CHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
1,1-DICHLOROETHENE	10 U	57	10 U	10 U	10 U	10 U
METHYLENE CHLORIDE	10 U	8 J	10 U	10 U	10 U	10 U
1,1-DICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
CHLOROFORM	10 U	10 U	10 U	10 U	10 U	8 J
1,1,1-TRICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
CARBON TETRACHLORIDE	10 U	10 U	10 U	10 U	10 U	10 U
BENZENE	10 U	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
TRICHLOROETHENE	10 U	97000	10 U	10 U	10 U	10 U
1,2-DICHLOROPROPANE	10 U	10 U	10 U	10 U	10 U	10 U
BROMODICHLOROMETHANE	10 U	10 U	10 U	10 U	10 U	10 U
TOLUENE	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-TRICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
TETRACHLOROETHENE	10 U	890	10 U	10 U	10 U	10 U
DIBROMOCHLOROMETHANE	10 U	10 U	10 U	10 U	10 U	10 U
CHLOROBENZENE	10 U	10 U	10 U	10 U	10 U	10 U
ETHYLBENZENE	10 U	10 U	10 U	10 U	10 U	10 U
STYRENE	10 U	10 U	10 U	10 U	10 U	10 U
BROMOFORM	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
CIS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U	10 U	10 U
TRANS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U	10 U	10 U
ACETONE	10 U	10 U	10 U	10 U	10 U	10 U
2-BUTANONE	10 U	10 U	10 U	10 U	10 U	10 U
CARBON DISULFIDE	10 U	10 U	10 U	10 U	10 U	10 U
4-METHYL-2-PENTANONE	10 U	10 U	10 U	10 U	10 U	10 U
2-HEXANONE	10 U	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	28000	10 U	10 U	10 U	10 U
XYLENE (TOTAL)	10 U	10 U	10 U	10 U	10 U	10 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MBC, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR06-GW03D-97C	IR06-GW15D-97C	IR06-GW16-97C	IR06-GW17-97C	IR06-GW21-97C	IR06-GW27DA-97C
DATE SAMPLED	07/27/97	07/26/97	07/27/97	07/27/97	07/27/97	07/23/97
VOLATILES (ug/l)						
CHLOROMETHANE	10 U	10 U	10 U	10 U	10 U	10 U
VINYL CHLORIDE	10 U	10 U	10 U	10 U	10 U	10 U
BROMOMETHANE	10 U	10 U	10 U	10 U	10 U	10 U
CHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
1,1-DICHLOROETHENE	10 U	10 U	10 U	10 U	10 U	10 U
METHYLENE CHLORIDE	10 U	10 U	10 U	10 U	10 U	10 U
1,1-DICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
CHLOROFORM	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-TRICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
CARBON TETRACHLORIDE	10 U	10 U	10 U	10 U	10 U	10 U
BENZENE	10 U	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
TRICHLOROETHENE	10 U	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROPROPANE	10 U	10 U	10 U	10 U	10 U	10 U
BROMODICHLOROMETHANE	10 U	10 U	10 U	10 U	10 U	10 U
TOLUENE	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-TRICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
TETRACHLOROETHENE	10 U	10 U	10 U	10 U	10 U	10 U
DIBROMOCHLOROMETHANE	10 U	10 U	10 U	10 U	10 U	10 U
CHLOROBENZENE	10 U	10 U	2700	10 U	10 U	10 U
ETHYLBENZENE	10 U	10 U	10 U	10 U	10 U	10 U
STYRENE	10 U	10 U	10 U	10 U	10 U	10 U
BROMOFORM	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	11	10 U	10 U	10 U
CIS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U	10 U	10 U
TRANS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U	10 U	10 U
ACETONE	10 U	10 U	10 U	10 U	10 U	10 U
2-BUTANONE	10 U	10 U	10 U	10 U	10 U	10 U
CARBON DISULFIDE	10 U	10 U	10 U	10 U	10 U	10 U
4-METHYL-2-PENTANONE	10 U	10 U	10 U	10 U	10 U	10 U
2-HEXANONE	10 U	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	10 U	10 U	10 U	10 U	10 U
XYLENE (TOTAL)	10 U	10 U	10 U	10 U	10 U	10 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MBC, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR06-GW27DW-97C	IR06-GW28-97C	IR06-GW28DW-97C	IR06-GW30-97C	IR06-GW30DW-97C	IR06-GW32-97C
DATE SAMPLED	07/22/97	07/25/97	07/25/97	07/24/97	07/24/97	07/27/97
VOLATILES (ug/l)						
CHLOROMETHANE	10 U	10 U	250 U	10 U	10 U	10 U
VINYL CHLORIDE	110	10 U	250 U	10 U	10 U	16
BROMOMETHANE	10 U	10 U	250 U	10 U	10 U	10 U
CHLOROETHANE	10 U	10 U	250 U	10 U	10 U	10 U
1,1-DICHLOROETHENE	11	10 U	250 U	10 U	10 U	10 U
METHYLENE CHLORIDE	10 U	10 U	250 U	10 U	10 U	10 U
1,1-DICHLOROETHANE	10 U	10 U	250 U	10 U	10 U	10 U
CHLOROFORM	10 U	10 U	250 U	10 U	10 U	10 U
1,1,1-TRICHLOROETHANE	10 U	10 U	250 U	10 U	10 U	10 U
CARBON TETRACHLORIDE	10 U	10 U	250 U	10 U	10 U	10 U
BENZENE	10 U	10 U	250 U	10 U	10 U	10 U
1,2-DICHLOROETHANE	10 U	10 U	250 U	10 U	10 U	10 U
TRICHLOROETHENE	3400	22	1100	10 U	10 U	2800
1,2-DICHLOROPROPANE	10 U	10 U	250 U	10 U	10 U	10 U
BROMODICHLOROMETHANE	10 U	10 U	250 U	10 U	10 U	10 U
TOLUENE	10 U	10 U	250 U	10 U	10 U	10 U
1,1,2-TRICHLOROETHANE	10 U	10 U	250 U	10 U	10 U	10 U
TETRACHLOROETHENE	10 U	7 J	250 U	10 U	10 U	110
DIBROMOCHLOROMETHANE	10 U	10 U	250 U	10 U	10 U	10 U
CHLOROBENZENE	10 U	10 U	250 U	10 U	10 U	10 U
ETHYLBENZENE	10 U	10 U	250 U	10 U	10 U	10 U
STYRENE	10 U	10 U	250 U	10 U	10 U	10 U
BROMOFORM	10 U	10 U	250 U	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	250 U	10 U	10 U	10 U
CIS-1,3-DICHLOROPROPENE	10 U	10 U	250 U	10 U	10 U	10 U
TRANS-1,3-DICHLOROPROPENE	10 U	10 U	250 U	10 U	10 U	10 U
ACETONE	10 U	10 U	250 U	10 U	10 U	10 U
2-BUTANONE	10 U	10 U	250 U	10 U	10 U	10 U
CARBON DISULFIDE	10 U	10 U	250 U	10 U	10 U	10 U
4-METHYL-2-PENTANONE	10 U	10 U	250 U	10 U	10 U	10 U
2-HEXANONE	10 U	10 U	250 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	4800	10 U	550	10 U	10 U	1500
XYLENE (TOTAL)	10 U	10 U	250 U	10 U	10 U	10 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MBC, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR06-GW33-97C	IR06-GW34-97C	IR06-GW35D-97C	IR06-GW36D-97C	IR06-GW37D-97C	IR06-GW38D-97C
DATE SAMPLED	07/27/97	07/24/97	07/27/97	07/27/97	07/23/97	07/26/97
VOLATILES (ug/l)						
CHLOROMETHANE	10 U	250 U	10 U	10 U	50 U	10 U
VINYL CHLORIDE	10 U	250 U	10 U	10 U	50 U	10 U
BROMOMETHANE	10 U	250 U	10 U	10 U	50 U	10 U
CHLOROETHANE	10 U	250 U	10 U	10 U	50 U	10 U
1,1-DICHLOROETHENE	10 U	250 U	10 U	10 U	50 U	10 U
METHYLENE CHLORIDE	10 U	250 U	10 U	10 U	50 U	10 U
1,1-DICHLOROETHANE	10 U	250 U	10 U	10 U	50 U	10 U
CHLOROFORM	10 U	250 U	10 U	10 U	50 U	10 U
1,1,1-TRICHLOROETHANE	10 U	250 U	10 U	10 U	50 U	10 U
CARBON TETRACHLORIDE	10 U	250 U	10 U	10 U	50 U	10 U
BENZENE	10 U	250 U	10 U	10 U	50 U	10 U
1,2-DICHLOROETHANE	10 U	250 U	10 U	10 U	50 U	10 U
TRICHLOROETHENE	10 U	310	10 U	10 U	88	10 U
1,2-DICHLOROPROPANE	10 U	250 U	10 U	10 U	50 U	10 U
BROMODICHLOROMETHANE	10 U	250 U	10 U	10 U	50 U	10 U
TOLUENE	10 U	250 U	10 U	10 U	50 U	10 U
1,1,2-TRICHLOROETHANE	10 U	250 U	10 U	10 U	50 U	10 U
TETRACHLOROETHENE	10 U	170 J	10 U	10 U	50 U	10 U
DIBROMOCHLOROMETHANE	10 U	250 U	10 U	10 U	50 U	10 U
CHLOROBENZENE	10 U	250 U	10 U	10 U	50 U	10 U
ETHYLBENZENE	10 U	250 U	10 U	10 U	50 U	10 U
STYRENE	10 U	250 U	10 U	10 U	50 U	10 U
BROMOFORM	10 U	250 U	10 U	10 U	50 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	5600	10 U	10 U	50 U	10 U
CIS-1,3-DICHLOROPROPENE	10 U	250 U	10 U	10 U	50 U	10 U
TRANS-1,3-DICHLOROPROPENE	10 U	250 U	10 U	10 U	50 U	10 U
ACETONE	10 U	250 U	10 U	10 U	50 U	10 U
2-BUTANONE	10 U	250 U	10 U	10 U	50 U	10 U
CARBON DISULFIDE	10 U	250 U	10 U	10 U	50 U	10 U
4-METHYL-2-PENTANONE	10 U	250 U	10 U	10 U	50 U	10 U
2-HEXANONE	10 U	250 U	10 U	10 U	50 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	250 U	10 U	10 U	230	10 U
XYLENE (TOTAL)	10 U	250 U	10 U	10 U	50 U	10 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MBC, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR06-GW40DW-97C	IR06-GW40DWA-97C	IR82-GW02-97C	IR82-GW03-97C
DATE SAMPLED	07/24/97	07/25/97	07/27/97	07/23/97
VOLATILES (ug/l)				
CHLOROMETHANE	10 U	10 U	10 U	10 U
VINYL CHLORIDE	10 U	10 U	10 U	10 U
BROMOMETHANE	10 U	10 U	10 U	10 U
CHLOROETHANE	10 U	10 U	10 U	10 U
1,1-DICHLOROETHENE	10 U	10 U	10 U	10 U
METHYLENE CHLORIDE	10 U	10 U	10 U	10 U
1,1-DICHLOROETHANE	10 U	10 U	10 U	10 U
CHLOROFORM	10 U	10 U	10 U	10 U
1,1,1-TRICHLOROETHANE	10 U	10 U	10 U	10 U
CARBON TETRACHLORIDE	10 U	10 U	10 U	10 U
BENZENE	10 U	10 U	10 U	10 U
1,2-DICHLOROETHANE	10 U	10 U	10 U	10 U
TRICHLOROETHENE	10 U	10 U	10 U	10 U
1,2-DICHLOROPROPANE	10 U	10 U	10 U	10 U
BROMODICHLOROMETHANE	10 U	10 U	10 U	10 U
TOLUENE	10 U	10 U	10 U	10 U
1,1,2-TRICHLOROETHANE	10 U	10 U	10 U	10 U
TETRACHLOROETHENE	10 U	10 U	10 U	10 U
DIBROMOCHLOROMETHANE	10 U	10 U	10 U	10 U
CHLOROBENZENE	10 U	10 U	10 U	10 U
ETHYLBENZENE	10 U	10 U	10 U	10 U
STYRENE	10 U	10 U	10 U	10 U
BROMOFORM	10 U	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	10 U	10 U
CIS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U
TRANS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U
ACETONE	10 U	10 U	10 U	10 U
2-BUTANONE	10 U	10 U	10 U	10 U
CARBON DISULFIDE	10 U	10 U	10 U	10 U
4-METHYL-2-PENTANONE	10 U	10 U	10 U	10 U
2-HEXANONE	10 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	10 U	10 U	10 U
XYLENE (TOTAL)	10 U	10 U	10 U	10 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MBC, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS AND WET CHEMISTRY

SAMPLE ID	IR06-GW01-97C	IR06-GW01D-97C	IR06-GW01DA-97C	IR06-GW01DB-97C	IR06-GW02DW-97C	IR06-GW03-97C
DATE SAMPLED	07/26/97	07/26/97	07/26/97	07/25/97	07/27/97	07/26/97
TOTAL METALS (ug/l)						
ALUMINUM, TOTAL	84.6	65.6	64	242	46.2	98.2
ANTIMONY, TOTAL	1.9 U	1.9 U	1.9 U	2	1.9 U	1.9 U
ARSENIC, TOTAL	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
BARIUM, TOTAL	22.1	31.8	3.7	1.9	6.4	43.8
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CADMIUM, TOTAL	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	4.8
CALCIUM, TOTAL	18000	121000	32800	7750	47500	36500
CHROMIUM, TOTAL	0.7 U	0.7 U	1.6	0.99	0.7 U	0.7 U
COBALT, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
COPPER, TOTAL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IRON, TOTAL	38.8	902	37.9	168	192	16.1 U
LEAD, TOTAL	1.5 U	2.3	1.5 U	1.9	1.5	1.5 U
MAGNESIUM, TOTAL	1400	3030	3400	2140	1180	2980
MANGANESE, TOTAL	3.6	33.2	20	0.91	6	0.6 U
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	0.8 U	0.8 U	1.9	1	0.8 U	2.1
POTASSIUM, TOTAL	2680	1790	10300	15200	1290	4120
SELENIUM, TOTAL	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	5.4
SILVER, TOTAL	0.6 U	1.6	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	3420	4710	19500	230000	3610	3540
THALLIUM, TOTAL	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
VANADIUM, TOTAL	0.94	0.8 U	0.8 U	0.8 U	0.8 U	1.3
ZINC, TOTAL	0.4 U	0.5	0.4 U	1.8	2.1	505
WET CHEMISTRY (mg/L)						
TOTAL DISSOLVED SOLIDS	120	460	190	670	170	190
TOTAL SUSPENDED SOLIDS	4 U	4	4 U	15	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MBC, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS AND WET CHEMISTRY

SAMPLE ID	IR06-GW03D-97C	IR06-GW15D-97C	IR06-GW16-97C	IR06-GW17-97C	IR06-GW21-97C	IR06-GW27DA-97C
DATE SAMPLED	07/27/97	07/26/97	07/27/97	07/27/97	07/27/97	07/23/97
TOTAL METALS (ug/l)						
ALUMINUM, TOTAL	630	80.5	631	1900	243	71.4
ANTIMONY, TOTAL	1.9 U	1.9 U	2.6	1.9 U	1.9 U	1.9 U
ARSENIC, TOTAL	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
BARIUM, TOTAL	10.8	3	36.6	43.2	33.9	3.4
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CADMIUM, TOTAL	0.4 U	0.4 U	0.4 U	0.4 U	0.54	0.41
CALCIUM, TOTAL	47600	33900	11900	24600	4030	4950
CHROMIUM, TOTAL	1.9	0.7 U	1.1	3	0.7 U	0.7 U
COBALT, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.76	0.7 U
COPPER, TOTAL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.87
IRON, TOTAL	996	179	1660	1210	26	16.8
LEAD, TOTAL	2.3	1.5 U	2.1	4.3	10	5.6
MAGNESIUM, TOTAL	1080	851	1130	663	1040	342
MANGANESE, TOTAL	23.6	8.8	88.2	2.8	7	0.6 U
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	0.89	0.8 U	1.3	1.7	0.8 U	0.89
POTASSIUM, TOTAL	1140	1020	761	1060	647	9450
SELENIUM, TOTAL	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
SILVER, TOTAL	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	3730	3060	8450	9370	6140	148000
THALLIUM, TOTAL	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
VANADIUM, TOTAL	1.2	0.8 U	1.6	9.7	0.8 U	0.83
ZINC, TOTAL	4.2	5	526	4	1.4	0.73
WET CHEMISTRY (mg/L)						
TOTAL DISSOLVED SOLIDS	150	130	130	170	62	420
TOTAL SUSPENDED SOLIDS	22	4 U	10	4 U	4 U	4 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MBC, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS AND WET CHEMISTRY

SAMPLE ID	IR06-GW27DW-97C	IR06-GW28-97C	IR06-GW28DW-97C	IR06-GW30-97C	IR06-GW30DW-97C	IR06-GW32-97C
DATE SAMPLED	07/22/97	07/25/97	07/25/97	07/24/97	07/24/97	07/27/97
TOTAL METALS (ug/l)						
ALUMINUM, TOTAL	45.5	105	60	113	46.4	183
ANTIMONY, TOTAL	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
ARSENIC, TOTAL	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
BARIUM, TOTAL	7.2	17.4	6.4	7.6	4.5	18.5
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CADMIUM, TOTAL	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
CALCIUM, TOTAL	48800	1990	51700	16600	55700	20800
CHROMIUM, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
COBALT, TOTAL	0.7 U	0.7 U	0.7 U	2.2	0.7 U	0.7 U
COPPER, TOTAL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
IRON, TOTAL	438	16.1 U	569	229	984	66.5
LEAD, TOTAL	1.5 U	1.6	1.5 U	1.5 U	1.5 U	11.4
MAGNESIUM, TOTAL	1120	1670	1160	1590	1400	1370
MANGANESE, TOTAL	7.5	8.2	19.2	21.8	28.1	6
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	0.86	0.91	0.8 U	10.7	0.8 U	1.4
POTASSIUM, TOTAL	1190	848	1100	1200	994	937
SELENIUM, TOTAL	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
SILVER, TOTAL	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	4200	8180	3690	4680	5980	5910
THALLIUM, TOTAL	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
VANADIUM, TOTAL	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.84
ZINC, TOTAL	0.4 U	4.2	0.4 U	67	1.1	2.6
WET CHEMISTRY (mg/L)						
TOTAL DISSOLVED SOLIDS	150	54	170	98	190	120
TOTAL SUSPENDED SOLIDS	4 U	4 U	4 U	4 U	4 U	4

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MBC, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS AND WET CHEMISTRY

SAMPLE ID	IR06-GW33-97C	IR06-GW34-97C	IR06-GW35D-97C	IR06-GW36D-97C	IR06-GW37D-97C	IR06-GW38D-97C
DATE SAMPLED	07/27/97	07/24/97	07/27/97	07/27/97	07/23/97	07/26/97
TOTAL METALS (ug/l)						
ALUMINUM, TOTAL	770	722	77.1	80.8	42.2	86.4
ANTIMONY, TOTAL	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
ARSENIC, TOTAL	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
BARIUM, TOTAL	73.6	77.6	9.3	5.2	14.4	0.5
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CADMIUM, TOTAL	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
CALCIUM, TOTAL	1240	5330	58300	52300	68700	2190
CHROMIUM, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.81
COBALT, TOTAL	0.7 U	1.6	0.7 U	0.7 U	0.7 U	0.7 U
COPPER, TOTAL	0.5 U	0.54	0.5 U	0.5 U	0.5 U	0.5 U
IRON, TOTAL	427	16.1 U	499	496	726	16.1 U
LEAD, TOTAL	1.5 U	4.2	1.5 U	1.5 U	1.5 U	1.6
MAGNESIUM, TOTAL	3670	6110	1730	1320	1770	1190
MANGANESE, TOTAL	8.7	20.7	21.2	28.7	11.4	0.6 U
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	1.7	2.2	0.8 U	0.8 U	0.89	1.2
POTASSIUM, TOTAL	696	8560	1660	1220	1650	11200
SELENIUM, TOTAL	2.2 U	13.5	2.2 U	2.2 U	2.2 U	2.2 U
SILVER, TOTAL	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	10900	14100	6400	5000	7440	172000
THALLIUM, TOTAL	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
VANADIUM, TOTAL	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
ZINC, TOTAL	3	30.4	0.86	0.97	0.98	2.3
WET CHEMISTRY (mg/L)						
TOTAL DISSOLVED SOLIDS	84	94	210	180	220	500
TOTAL SUSPENDED SOLIDS	5	4 U	7	7	5	4 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 2 - SITES 6 AND 82
MONITORING AND O&M SUPPORT, CTO-0367
MBC, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS AND WET CHEMISTRY

SAMPLE ID	IR06-GW40DW-97C	IR06-GW40DWA-97C	IR82-GW02-97C	IR82-GW03-97C
DATE SAMPLED	07/24/97	07/25/97	07/27/97	07/23/97
TOTAL METALS (ug/l)				
ALUMINUM, TOTAL	59.1	122	486	5280
ANTIMONY, TOTAL	1.9 U	1.9 U	1.9 U	1.9 U
ARSENIC, TOTAL	2.5 U	2.5 U	2.5 U	2.5 U
BARIUM, TOTAL	7.8	4.1	36.3	66.3
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.58
CADMIUM, TOTAL	0.4 U	0.49	0.4 U	0.4 U
CALCIUM, TOTAL	55500	12300	72400	3260
CHROMIUM, TOTAL	0.7 U	1.1	1	0.7 U
COBALT, TOTAL	0.7 U	0.7 U	0.7 U	7
COPPER, TOTAL	0.5 U	0.5 U	0.5 U	0.5 U
IRON, TOTAL	612	182	5740	3440
LEAD, TOTAL	1.5 U	3.2	1.5 U	1.5 U
MAGNESIUM, TOTAL	1290	9500	6120	4950
MANGANESE, TOTAL	14.1	5.1	46.7	122
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	0.8 U	1.9	1.7	11
POTASSIUM, TOTAL	1140	31700	489	1010
SELENIUM, TOTAL	2.2 U	2.2 U	2.2 U	2.2 U
SILVER, TOTAL	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	3880	479000	55000	7030
THALLIUM, TOTAL	2.1 U	2.1 U	2.1 U	2.1 U
VANADIUM, TOTAL	0.8 U	0.8 U	0.8 U	0.8 U
ZINC, TOTAL	0.71	1.4	2.5	37
WET CHEMISTRY (mg/L)				
TOTAL DISSOLVED SOLIDS	120	1600	500	130
TOTAL SUSPENDED SOLIDS	4 U	12	19	5

ATTACHMENT D
ANALYTICAL LABORATORY DATA SHEETS - JULY 1997

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-017

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM26

Level: (low/med) LOW Date Received: 07/28/97

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

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-017

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM26

Level: (low/med) LOW Date Received: 07/28/97

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

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96317

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-017

Level (low/med): LOW__ Date Received: 07/28/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	84.6	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	22.1	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	18000			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron____	38.8	B		P_
7439-92-1	Lead____	1.5	U		P_
7439-95-4	Magnesium	1400	B		P_
7439-96-5	Manganese	3.6	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	2680	B	E	P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	3420	B		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.94	B		P_
7440-66-6	Zinc____	0.40	U		P_
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	___

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW01-97C_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW01-97C
Project # 00000-000-000-0000
Lab ID: 9707G963-017
Sample Date: 07/26/97
Date Received: 07/28/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	120		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW01D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-018

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM27

Level: (low/med) LOW Date Received: 07/28/97

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	840	E
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	100	E
75-09-2	Methylene chloride	8	J
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	13000	E
79-01-6	Trichloroethene	50000	E
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
108-88-3	Toluene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	700	E
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
67-64-1	Acetone	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon Disulfide	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW01D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-018

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM27

Level: (low/med) LOW Date Received: 07/28/97

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

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR06-GW0
1D-97CDL

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-018

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM42

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

Column: (pack/cap) CAP Dilution Factor: 500.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	5000	U
75-01-4	Vinyl chloride	320	D
74-83-9	Bromomethane	5000	U
75-00-3	Chloroethane	5000	U
75-35-4	1,1-Dichloroethene	57	D
75-09-2	Methylene chloride	5000	U
75-34-3	1,1-Dichloroethane	5000	U
67-66-3	Chloroform	5000	U
71-55-6	1,1,1-Trichloroethane	5000	U
56-23-5	Carbon tetrachloride	5000	U
71-43-2	Benzene	5000	U
107-06-2	1,2-Dichloroethane	5000	U
540-59-0	1,2-Dichloroethene (total)	28000	D
79-01-6	Trichloroethene	82000	DE
78-87-5	1,2-Dichloropropane	5000	U
75-27-4	Bromodichloromethane	5000	U
108-88-3	Toluene	5000	U
79-00-5	1,1,2-Trichloroethane	5000	U
127-18-4	Tetrachloroethene	890	D
124-48-1	Dibromochloromethane	5000	U
108-90-7	Chlorobenzene	5000	U
100-41-4	Ethylbenzene	5000	U
100-42-5	Styrene	5000	U
75-25-2	Bromoform	5000	U
79-34-5	1,1,2,2-Tetrachloroethane	5000	U
10061-01-5	cis-1,3-Dichloropropene	5000	U
10061-02-6	trans-1,3-Dichloropropene	5000	U
67-64-1	Acetone	5000	U
78-93-3	2-Butanone	5000	U
75-15-0	Carbon Disulfide	5000	U
108-10-1	4-Methyl-2-pentanone	5000	U
591-78-6	2-Hexanone	5000	U
1330-20-7	Xylene (total)	5000	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW0
1D-97CDL

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-018

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM41

Level: (low/med) LOW Date Received: 07/28/97

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

Column: (pack/cap) CAP Dilution Factor: 5000.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	50000	U
75-01-4	Vinyl chloride	50000	U
74-83-9	Bromomethane	50000	U
75-00-3	Chloroethane	50000	U
75-35-4	1,1-Dichloroethene	50000	U
75-09-2	Methylene chloride	50000	U
75-34-3	1,1-Dichloroethane	50000	U
67-66-3	Chloroform	50000	U
71-55-6	1,1,1-Trichloroethane	50000	U
56-23-5	Carbon tetrachloride	50000	U
71-43-2	Benzene	50000	U
107-06-2	1,2-Dichloroethane	50000	U
540-59-0	1,2-Dichloroethene (total)	50000	U
79-01-6	Trichloroethene	97000	D
78-87-5	1,2-Dichloropropane	50000	U
75-27-4	Bromodichloromethane	50000	U
108-88-3	Toluene	50000	U
79-00-5	1,1,2-Trichloroethane	50000	U
127-18-4	Tetrachloroethene	50000	U
124-48-1	Dibromochloromethane	50000	U
108-90-7	Chlorobenzene	50000	U
100-41-4	Ethylbenzene	50000	U
100-42-5	Styrene	50000	U
75-25-2	Bromoform	50000	U
79-34-5	1,1,2,2-Tetrachloroethane	50000	U
10061-01-5	cis-1,3-Dichloropropene	50000	U
10061-02-6	trans-1,3-Dichloropropene	50000	U
67-64-1	Acetone	50000	U
78-93-3	2-Butanone	50000	U
75-15-0	Carbon Disulfide	50000	U
108-10-1	4-Methyl-2-pentanone	50000	U
591-78-6	2-Hexanone	50000	U
1330-20-7	Xylene (total)	50000	U

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96318

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-018

Level (low/med): LOW__ Date Received: 07/28/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	65.6	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	31.8	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	121000			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	902			P_
7439-92-1	Lead_____	2.3	B		P_
7439-95-4	Magnesium	3030	B		P_
7439-96-5	Manganese	33.2			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	1790	B	E	P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	1.6	B		P_
7440-23-5	Sodium___	4710	B		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	0.50	B		P_
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW01D-97C_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW01D-97C
Project # 00000-000-000-0000
Lab ID: 9707G963-018
Sample Date: 07/26/97
Date Received: 07/28/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	460		mg/L	10
Total Suspended Solid	4	U	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW01DA-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-019

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM40

Level: (low/med) LOW Date Received: 07/28/97

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

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW01DA-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-019

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM40

Level: (low/med) LOW Date Received: 07/28/97

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

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
G96319

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-019

Level (low/med): LOW__ Date Received: 07/28/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	64.0	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	3.7	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	32800			P_
7440-47-3	Chromium_	1.6	B		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	37.9	B		P_
7439-92-1	Lead_____	1.5	U		P_
7439-95-4	Magnesium	3400	B		P_
7439-96-5	Manganese	20.0			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.9	B		P_
7440-09-7	Potassium	10300		E	P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	19500			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	0.40	U		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:
IR06-GW01DA-97

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW01DA-97C
Project # 00000-000-000-0000
Lab ID: 9707G963-019
Sample Date: 07/26/97
Date Received: 07/28/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	190		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW01DB-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-012

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM30

Level: (low/med) LOW Date Received: 07/26/97

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

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW01DB-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-012

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM30

Level: (low/med) LOW Date Received: 07/26/97

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

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96315

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-015

Level (low/med): LOW__ Date Received: 07/28/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	242			P
7440-36-0	Antimony_	2.0	B		P
7440-38-2	Arsenic__	2.5	U		P
7440-39-3	Barium___	1.9	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	7750			P
7440-47-3	Chromium_	0.99	B		P
7440-48-4	Cobalt___	0.70	U		P
7440-50-8	Copper___	0.50	U		P
7439-89-6	Iron_____	168			P
7439-92-1	Lead_____	1.9	B		P
7439-95-4	Magnesium	2140	B		P
7439-96-5	Manganese	0.91	B		P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.0	B		P
7440-09-7	Potassium	15200		E	P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.60	U		P
7440-23-5	Sodium___	230000			P
7440-28-0	Thallium_	2.1	U		P
7440-62-2	Vanadium_	0.80	U		P
7440-66-6	Zinc_____	1.8	B		P
_____	Cyanide__	_____			NR
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW01DB-97_____

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

Attn: **Mr. Don Joiner**

Date: Monday August 18th, 1997

RE: **IR06-GW01DB-97C**
Project # 00000-000-000-0000
Lab ID: **9707G963-015**
Sample Date: 07/25/97
Date Received: 07/28/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	670	mg/L	10
Total Suspended Solid	15	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW02DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-003

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX03

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW02DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-003

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX03

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04503

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-003

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	46.2	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	6.4	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	47500			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron____	192			P_
7439-92-1	Lead____	1.5	B	*	P_
7439-95-4	Magnesium	1180	B		P_
7439-96-5	Manganese	6.0	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	1290	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	3610	B		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc____	2.1	B		P_
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW02DW-97_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW02DW-97C
Project # 00000-000-000-0000
Lab ID: 9707G045-003
Sample Date: 07/27/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	170		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-004

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX04

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	8	J
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-004

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX04

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04504

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-004

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	98.2	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	43.8	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	4.8	B		P_
7440-70-2	Calcium__	36500	_		P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	16.1	U		P_
7439-92-1	Lead_____	1.5	U	*	P_
7439-95-4	Magnesium	2980	B		P_
7439-96-5	Manganese	0.60	U		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	2.1	B		P_
7440-09-7	Potassium	4120	B		P_
7782-49-2	Selenium_	5.4	_		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	3540	B		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	1.3	B		P_
7440-66-6	Zinc_____	505	_		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		___

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW03-97C_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW03-97C
Project # 00000-000-000-0000
Lab ID: 9707G045-004
Sample Date: 07/26/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	190		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW03D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-009

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX12

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW03D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-009

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX12

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04509

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-009

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	630			P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	10.8	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	47600			P_
7440-47-3	Chromium_	1.9	B		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron____	996			P_
7439-92-1	Lead____	2.3	B	*	P_
7439-95-4	Magnesium	1080	B		P_
7439-96-5	Manganese	23.6			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.89	B		P_
7440-09-7	Potassium	1140	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	3730	B		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	1.2	B		P_
7440-66-6	Zinc____	4.2	B		P_
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW03D-97C_____

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

Attn: **Mr. Don Joiner**

Date: Monday August 18th, 1997

RE: **IR06-GW03D-97C**
Project # 00000-000-000-0000
Lab ID: **9707G045-009**
Sample Date: 07/27/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	150	mg/L	10
Total Suspended Solid	22	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW15D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-001

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX01

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW15D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-001

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX01

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04501

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-001

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	80.5	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	3.0	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	33900			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	179			P_
7439-92-1	Lead_____	1.5	U	*	P_
7439-95-4	Magnesium	851	B		P_
7439-96-5	Manganese	8.8	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	1020	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	3060	B		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	5.0	B		P_
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW15D-97C_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW15D-97C
Project # 00000-000-000-0000
Lab ID: 9707G045-001
Sample Date: 07/26/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	130		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW16-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-006

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX06

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	11	
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	1800	E
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW16-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-006

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX06

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR06-GW16-97CDL

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-006

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX11

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 50.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	500	U
74-83-9	Bromomethane	500	U
75-01-4	Vinyl Chloride	500	U
75-00-3	Chloroethane	500	U
75-09-2	Methylene Chloride	500	U
67-64-1	Acetone	500	U
75-15-0	Carbon Disulfide	500	U
75-35-4	1,1-Dichloroethene	500	U
75-34-3	1,1-Dichloroethane	500	U
540-59-0	1,2-Dichloroethene (total)	500	U
67-66-3	Chloroform	500	U
107-06-2	1,2-Dichloroethane	500	U
78-93-3	2-Butanone	500	U
71-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon Tetrachloride	500	U
75-27-4	Bromodichloromethane	500	U
78-87-5	1,2-Dichloropropane	500	U
10061-01-5	cis-1,3-Dichloropropene	500	U
79-01-6	Trichloroethene	500	U
124-48-1	Dibromochloromethane	500	U
79-00-5	1,1,2-Trichloroethane	500	U
71-43-2	Benzene	500	U
10061-02-6	trans-1,3-Dichloropropene	500	U
75-25-2	Bromoform	500	U
108-10-1	4-Methyl-2-pentanone	500	U
591-78-6	2-Hexanone	500	U
127-18-4	Tetrachloroethene	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
108-88-3	Toluene	500	U
108-90-7	Chlorobenzene	2700	D
100-41-4	Ethylbenzene	500	U
100-42-5	Styrene	500	U
1330-20-7	Xylene (total)	500	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW16-97CDL

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-006

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX11

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 50.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04506

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-006

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	631			P
7440-36-0	Antimony	2.6	B		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	36.6	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	11900			P
7440-47-3	Chromium	1.1	B		P
7440-48-4	Cobalt	0.70	U		P
7440-50-8	Copper	0.50	U		P
7439-89-6	Iron	1660			P
7439-92-1	Lead	2.1	B	*	P
7439-95-4	Magnesium	1130	B		P
7439-96-5	Manganese	88.2			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.3	B		P
7440-09-7	Potassium	761	B		P
7782-49-2	Selenium	2.2	U		P
7440-22-4	Silver	0.60	U		P
7440-23-5	Sodium	8450			P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	1.6	B		P
7440-66-6	Zinc	526			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW16-97C

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

Attn: **Mr. Don Joiner**

Date: Monday August 18th, 1997

RE: **IR06-GW16-97C**
Project # 00000-000-000-0000
Lab ID: **9707G045-006**
Sample Date: 07/27/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	130	mg/L	10
Total Suspended Solid	10	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW17-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-005

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX05

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW17-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-005

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX05

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04505

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-005

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	1900	_		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	43.2	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	24600			P_
7440-47-3	Chromium_	3.0	B		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	1210	_		P_
7439-92-1	Lead_____	4.3	_	*___	P_
7439-95-4	Magnesium	663	B		P_
7439-96-5	Manganese	2.8	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.7	B		P_
7440-09-7	Potassium	1060	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	9370			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	9.7	B		P_
7440-66-6	Zinc_____	4.0	B		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		___

Color Before: YELLOW___ Clarity Before: CLEAR_ Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW17-97C_____

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

Attn: **Mr. Don Joiner**

Date: Monday August 18th, 1997

RE: **IR06-GW17-97C**
Project # 00000-000-000-0000
Lab ID: **9707G045-005**
Sample Date: 07/27/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	170		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW21-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-010

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX10

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW21-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-010

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX10

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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6.					
7.					
8.					
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10.					
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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04510

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-010

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	243			P
7440-36-0	Antimony_	1.9	U		P
7440-38-2	Arsenic__	2.5	U		P
7440-39-3	Barium___	33.9	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium__	0.54	B		P
7440-70-2	Calcium__	4030	B		P
7440-47-3	Chromium_	0.70	U		P
7440-48-4	Cobalt___	0.76	B		P
7440-50-8	Copper___	0.50	U		P
7439-89-6	Iron_____	26.0	B		P
7439-92-1	Lead_____	10		*	P
7439-95-4	Magnesium	1040	B		P
7439-96-5	Manganese	7.0	B		P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P
7440-09-7	Potassium	647	B		P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.60	U		P
7440-23-5	Sodium___	6140			P
7440-28-0	Thallium_	2.1	U		P
7440-62-2	Vanadium_	0.80	U		P
7440-66-6	Zinc_____	1.4	B		P
_____	Cyanide__	_____			NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW21-97C_____

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

Attn: **Mr. Don Joiner**

Date: Monday August 18th, 1997

RE: **IR06-GW21-97C**
Project # 00000-000-000-0000
Lab ID: **9707G045-010**
Sample Date: 07/27/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	62		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW27DA-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-002

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM09

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW27DA-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-002

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM09

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96302

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-002

Level (low/med): LOW__ Date Received: 07/24/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	71.4	B		P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	3.4	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	0.41	B		P
7440-70-2	Calcium	4950	B		P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	0.70	U		P
7440-50-8	Copper	0.87	B		P
7439-89-6	Iron	16.8	B		P
7439-92-1	Lead	5.6			P
7439-95-4	Magnesium	342	B		P
7439-96-5	Manganese	0.60	U		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.89	B		P
7440-09-7	Potassium	9450		E	P
7782-49-2	Selenium	2.2	U		P
7440-22-4	Silver	0.60	U		P
7440-23-5	Sodium	148000			P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	0.83	B		P
7440-66-6	Zinc	0.73	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW27DA-97

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW27DA-97C
Project # 00000-000-000-0000
Lab ID: 9707G963-002
Sample Date: 07/23/97
Date Received: 07/24/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	420		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW27DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-001

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM01

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/04/97

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	100	E
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	11	
75-09-2	Methylene chloride	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	1600	E
79-01-6	Trichloroethene	160	E
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
108-88-3	Toluene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
67-64-1	Acetone	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon Disulfide	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW27DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-001

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM01

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/04/97

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

Number TICs found: 0

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

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW2
7DW-97CDL

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-001

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM07

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/05/97

Column: (pack/cap) CAP Dilution Factor: 100.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	1000	U
75-01-4	Vinyl chloride	110	D
74-83-9	Bromomethane	1000	U
75-00-3	Chloroethane	1000	U
75-35-4	1,1-Dichloroethene	1000	U
75-09-2	Methylene chloride	1000	U
75-34-3	1,1-Dichloroethane	1000	U
67-66-3	Chloroform	1000	U
71-55-6	1,1,1-Trichloroethane	1000	U
56-23-5	Carbon tetrachloride	1000	U
71-43-2	Benzene	1000	U
107-06-2	1,2-Dichloroethane	1000	U
79-01-6	Trichloroethene	3400	D
78-87-5	1,2-Dichloropropane	1000	U
75-27-4	Bromodichloromethane	1000	U
108-88-3	Toluene	1000	U
79-00-5	1,1,2-Trichloroethane	1000	U
127-18-4	Tetrachloroethene	1000	U
124-48-1	Dibromochloromethane	1000	U
108-90-7	Chlorobenzene	1000	U
100-41-4	Ethylbenzene	1000	U
100-42-5	Styrene	1000	U
75-25-2	Bromoform	1000	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	U
10061-01-5	cis-1,3-Dichloropropene	1000	U
10061-02-6	trans-1,3-Dichloropropene	1000	U
67-64-1	Acetone	1000	U
78-93-3	2-Butanone	1000	U
75-15-0	Carbon Disulfide	1000	U
108-10-1	4-Methyl-2-pentanone	1000	U
591-78-6	2-Hexanone	1000	U
540-59-0	1,2-Dichloroethene (total)	4800	D
1330-20-7	Xylene (total)	1000	U

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96301

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-001

Level (low/med): LOW__ Date Received: 07/24/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.5	B		P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	7.2	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	48800			P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	0.70	U		P
7440-50-8	Copper	0.50	U		P
7439-89-6	Iron	438			P
7439-92-1	Lead	1.5	U		P
7439-95-4	Magnesium	1120	B		P
7439-96-5	Manganese	7.5	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.86	B		P
7440-09-7	Potassium	1190	B	E	P
7782-49-2	Selenium	2.2	U		P
7440-22-4	Silver	0.60	U		P
7440-23-5	Sodium	4200	B		P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	0.40	U		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW27DW-97

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

Attn: **Mr. Don Joiner**

Date: Monday August 18th, 1997

RE: **IR06-GW27DW-97C**
Project # 00000-000-000-0000
Lab ID: **9707G963-001**
Sample Date: 07/22/97
Date Received: 07/24/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	150		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW28-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-011

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM21

Level: (low/med) LOW Date Received: 07/26/97

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene chloride	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
79-01-6	Trichloroethene	22	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
108-88-3	Toluene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	7	J
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
67-64-1	Acetone	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon Disulfide	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW28-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-011

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM21

Level: (low/med) LOW Date Received: 07/26/97

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

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96311

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-011

Level (low/med): LOW__ Date Received: 07/26/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	105	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	17.4	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	1990	B		P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	16.1	U		P_
7439-92-1	Lead_____	1.6	B		P_
7439-95-4	Magnesium	1670	B		P_
7439-96-5	Manganese	8.2	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.91	B		P_
7440-09-7	Potassium	848	B	E	P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	8180			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	4.2	B		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW28-97C_____

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

Attn: **Mr. Don Joiner**

Date: Monday August 18th, 1997

RE: **IR06-GW28-97C**
Project # 00000-000-000-0000
Lab ID: **9707G963-011**
Sample Date: 07/25/97
Date Received: 07/26/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	54		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW28DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-010

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM20

Level: (low/med) LOW Date Received: 07/26/97

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

Column: (pack/cap) CAP Dilution Factor: 25.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	250	U
75-01-4	Vinyl chloride	250	U
74-83-9	Bromomethane	250	U
75-00-3	Chloroethane	250	U
75-35-4	1,1-Dichloroethene	250	U
75-09-2	Methylene chloride	250	U
75-34-3	1,1-Dichloroethane	250	U
67-66-3	Chloroform	250	U
71-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon tetrachloride	250	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	250	U
540-59-0	1,2-Dichloroethene (total)	550	
79-01-6	Trichloroethene	1500	E
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
108-88-3	Toluene	250	U
79-00-5	1,1,2-Trichloroethane	250	U
127-18-4	Tetrachloroethene	250	U
124-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	250	U
100-42-5	Styrene	250	U
75-25-2	Bromoform	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
10061-01-5	cis-1,3-Dichloropropene	250	U
10061-02-6	trans-1,3-Dichloropropene	250	U
67-64-1	Acetone	250	U
78-93-3	2-Butanone	250	U
75-15-0	Carbon Disulfide	250	U
108-10-1	4-Methyl-2-pentanone	250	U
591-78-6	2-Hexanone	250	U
1330-20-7	Xylene (total)	250	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW28DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-010

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM20

Level: (low/med) LOW Date Received: 07/26/97

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

Column: (pack/cap) CAP Dilution Factor: 25.0

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR06-GW2
8DW-97CDL

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-010

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM29

Level: (low/med) LOW Date Received: 07/26/97

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

Column: (pack/cap) CAP Dilution Factor: 50.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	500	U
75-01-4	Vinyl chloride	500	U
74-83-9	Bromomethane	500	U
75-00-3	Chloroethane	500	U
75-35-4	1,1-Dichloroethene	500	U
75-09-2	Methylene chloride	500	U
75-34-3	1,1-Dichloroethane	500	U
67-66-3	Chloroform	500	U
71-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon tetrachloride	500	U
71-43-2	Benzene	500	U
107-06-2	1,2-Dichloroethane	500	U
79-01-6	Trichloroethene	1100	D
78-87-5	1,2-Dichloropropane	500	U
75-27-4	Bromodichloromethane	500	U
108-88-3	Toluene	500	U
79-00-5	1,1,2-Trichloroethane	500	U
127-18-4	Tetrachloroethene	500	U
124-48-1	Dibromochloromethane	500	U
108-90-7	Chlorobenzene	500	U
100-41-4	Ethylbenzene	500	U
100-42-5	Styrene	500	U
75-25-2	Bromoform	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
10061-01-5	cis-1,3-Dichloropropene	500	U
10061-02-6	trans-1,3-Dichloropropene	500	U
67-64-1	Acetone	500	U
78-93-3	2-Butanone	500	U
75-15-0	Carbon Disulfide	500	U
108-10-1	4-Methyl-2-pentanone	500	U
591-78-6	2-Hexanone	500	U
540-59-0	1,2-Dichloroethene (total)	500	U
1330-20-7	Xylene (total)	500	U

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96310

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-010

Level (low/med): LOW__ Date Received: 07/26/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	60.0	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	6.4	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	51700	_		P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	569	_		P_
7439-92-1	Lead_____	1.5	U		P_
7439-95-4	Magnesium	1160	B		P_
7439-96-5	Manganese	19.2	_		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	1100	B	E	P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	3690	B		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	0.40	U		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		___

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW28DW-97_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW28DW-97C
Project # 00000-000-000-0000
Lab ID: 9707G963-010
Sample Date: 07/25/97
Date Received: 07/26/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	170		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW30-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-007

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM14

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW30-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-007

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM14

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
G96307

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-007

Level (low/med): LOW__ Date Received: 07/26/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	113	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	7.6	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	16600			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	2.2	B		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron____	229			P_
7439-92-1	Lead____	1.5	U		P_
7439-95-4	Magnesium	1590	B		P_
7439-96-5	Manganese	21.8			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	10.7	B		P_
7440-09-7	Potassium	1200	B	E	P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	4680	B		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc____	67.0			P_
_____	Cyanide__	_____			NR
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:
IR06-GW30-97C_____

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

Attn: **Mr. Don Joiner**

Date: Monday August 18th, 1997

RE: **IR06-GW30-97C**
Project # 00000-000-000-0000
Lab ID: **9707G963-007**
Sample Date: 07/24/97
Date Received: 07/26/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	98		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW30DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-006

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM13

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW30DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-006

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM13

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96306

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-006

Level (low/med): LOW__ Date Received: 07/26/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	46.4	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	4.5	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	55700			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	984			P_
7439-92-1	Lead_____	1.5	U		P_
7439-95-4	Magnesium	1400	B		P_
7439-96-5	Manganese	28.1			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	994	B	E	P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	5980			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	1.1	B		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		___

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW30DW-97_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW30DW-97C
Project # 00000-000-000-0000
Lab ID: 9707G963-006
Sample Date: 07/24/97
Date Received: 07/26/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	190		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW32-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-012

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX14

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	16	
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	1000	E
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	1400	E
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	110	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW32-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-012

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX14

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR06-GW32-97CDL

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-012

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX17

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/10/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 20.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	200	U
74-83-9	Bromomethane	200	U
75-01-4	Vinyl Chloride	200	U
75-00-3	Chloroethane	200	U
75-09-2	Methylene Chloride	200	U
67-64-1	Acetone	200	U
75-15-0	Carbon Disulfide	200	U
75-35-4	1,1-Dichloroethene	200	U
75-34-3	1,1-Dichloroethane	200	U
540-59-0	1,2-Dichloroethene (total)	1500	D
67-66-3	Chloroform	200	U
107-06-2	1,2-Dichloroethane	200	U
78-93-3	2-Butanone	200	U
71-55-6	1,1,1-Trichloroethane	200	U
56-23-5	Carbon Tetrachloride	200	U
75-27-4	Bromodichloromethane	200	U
78-87-5	1,2-Dichloropropane	200	U
10061-01-5	cis-1,3-Dichloropropene	200	U
79-01-6	Trichloroethene	2800	D
124-48-1	Dibromochloromethane	200	U
79-00-5	1,1,2-Trichloroethane	200	U
71-43-2	Benzene	200	U
10061-02-6	trans-1,3-Dichloropropene	200	U
75-25-2	Bromoform	200	U
108-10-1	4-Methyl-2-pentanone	200	U
591-78-6	2-Hexanone	200	U
127-18-4	Tetrachloroethene	200	U
79-34-5	1,1,2,2-Tetrachloroethane	200	U
108-88-3	Toluene	200	U
108-90-7	Chlorobenzene	200	U
100-41-4	Ethylbenzene	200	U
100-42-5	Styrene	200	U
1330-20-7	Xylene (total)	200	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW32-97CDL

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-012

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX17

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/10/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 20.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04512

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-012

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	183	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	18.5	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	20800			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron____	66.5	B		P_
7439-92-1	Lead____	11.4		*	P_
7439-95-4	Magnesium	1370	B		P_
7439-96-5	Manganese	6.0	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.4	B		P_
7440-09-7	Potassium	937	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	5910			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.84	B		P_
7440-66-6	Zinc____	2.6	B		P_
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW32-97C_____

FORM I - IN ILM03.0

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW32-97C
Project # 00000-000-000-0000
Lab ID: 9707G045-012
Sample Date: 07/27/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	120	mg/L	10
Total Suspended Solid	4	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW33-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-011

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX13

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW33-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-011

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX13

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04511

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-011

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	770	_		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	73.6	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	1240	B		P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	427	_		P_
7439-92-1	Lead_____	1.5	U	*	P_
7439-95-4	Magnesium	3670	B		P_
7439-96-5	Manganese	8.7	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.7	B		P_
7440-09-7	Potassium	696	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	10900	_		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	3.0	B		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW33-97C_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW33-97C
Project # 00000-000-000-0000
Lab ID: 9707G045-011
Sample Date: 07/27/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	84	mg/L	10
Total Suspended Solid	5	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW34-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-009

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM16

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

Column: (pack/cap) CAP Dilution Factor: 25.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	250	U
75-01-4	Vinyl chloride	250	U
74-83-9	Bromomethane	250	U
75-00-3	Chloroethane	250	U
75-35-4	1,1-Dichloroethene	250	U
75-09-2	Methylene chloride	250	U
75-34-3	1,1-Dichloroethane	250	U
67-66-3	Chloroform	250	U
71-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon tetrachloride	250	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	250	U
79-01-6	Trichloroethene	310	
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
108-88-3	Toluene	250	U
79-00-5	1,1,2-Trichloroethane	250	U
127-18-4	Tetrachloroethene	170	J
124-48-1	Dibromochloromethane	250	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	250	U
100-42-5	Styrene	250	U
75-25-2	Bromoform	250	U
79-34-5	1,1,2,2-Tetrachloroethane	7300	E
10061-01-5	cis-1,3-Dichloropropene	250	U
10061-02-6	trans-1,3-Dichloropropene	250	U
67-64-1	Acetone	250	U
78-93-3	2-Butanone	250	U
75-15-0	Carbon Disulfide	250	U
108-10-1	4-Methyl-2-pentanone	250	U
591-78-6	2-Hexanone	250	U
540-59-0	1,2-Dichloroethene (total)	250	U
1330-20-7	Xylene (total)	250	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

IR06-GW34-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-009

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM16

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

Column: (pack/cap) CAP Dilution Factor: 25.0

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR06-GW34-97CDL

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-009

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM18

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

Column: (pack/cap) CAP Dilution Factor: 250.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	2500	U
75-01-4	Vinyl chloride	2500	U
74-83-9	Bromomethane	2500	U
75-00-3	Chloroethane	2500	U
75-35-4	1,1-Dichloroethene	2500	U
75-09-2	Methylene chloride	2500	U
75-34-3	1,1-Dichloroethane	2500	U
67-66-3	Chloroform	2500	U
71-55-6	1,1,1-Trichloroethane	2500	U
56-23-5	Carbon tetrachloride	2500	U
71-43-2	Benzene	2500	U
107-06-2	1,2-Dichloroethane	2500	U
79-01-6	Trichloroethene	2500	U
78-87-5	1,2-Dichloropropane	2500	U
75-27-4	Bromodichloromethane	2500	U
108-88-3	Toluene	2500	U
79-00-5	1,1,2-Trichloroethane	2500	U
127-18-4	Tetrachloroethene	2500	U
124-48-1	Dibromochloromethane	2500	U
108-90-7	Chlorobenzene	2500	U
100-41-4	Ethylbenzene	2500	U
100-42-5	Styrene	2500	U
75-25-2	Bromoform	2500	U
79-34-5	1,1,2,2-Tetrachloroethane	5600	D
10061-01-5	cis-1,3-Dichloropropene	2500	U
10061-02-6	trans-1,3-Dichloropropene	2500	U
67-64-1	Acetone	2500	U
78-93-3	2-Butanone	2500	U
75-15-0	Carbon Disulfide	2500	U
108-10-1	4-Methyl-2-pentanone	2500	U
591-78-6	2-Hexanone	2500	U
540-59-0	1,2-Dichloroethene (total)	2500	U
1330-20-7	Xylene (total)	2500	U

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96309

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-009

Level (low/med): LOW__ Date Received: 07/26/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	722			P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	77.6	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	5330			P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	1.6	B		P
7440-50-8	Copper	0.54	B		P
7439-89-6	Iron	16.1	U		P
7439-92-1	Lead	4.2			P
7439-95-4	Magnesium	6110			P
7439-96-5	Manganese	20.7			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.2	B		P
7440-09-7	Potassium	8560		E	P
7782-49-2	Selenium	13.5			P
7440-22-4	Silver	0.60	U		P
7440-23-5	Sodium	14100			P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	30.4			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW34-97C_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW34-97C
Project # 00000-000-000-0000
Lab ID: 9707G963-009
Sample Date: 07/24/97
Date Received: 07/26/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	94		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW35D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-007

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX07

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW35D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-007

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX07

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04507

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-007

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	77.1	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	9.3	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	58300			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	499			P_
7439-92-1	Lead_____	1.5	U	*	P_
7439-95-4	Magnesium	1730	B		P_
7439-96-5	Manganese	21.2			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	1660	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	6400			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	0.86	B		P_
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	___

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW35D-97C_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW35D-97C
Project # 00000-000-000-0000
Lab ID: 9707G045-007
Sample Date: 07/27/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	210	mg/L	10
Total Suspended Solid	7	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW36D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-008

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX08

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW36D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-008

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX08

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04508

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-008

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	80.8	B		P
7440-36-0	Antimony	1.9	U		P
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	5.2	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	52300			P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	0.70	U		P
7440-50-8	Copper	0.50	U		P
7439-89-6	Iron	496			P
7439-92-1	Lead	1.5	U	*	P
7439-95-4	Magnesium	1320	B		P
7439-96-5	Manganese	28.7			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.80	U		P
7440-09-7	Potassium	1220	B		P
7782-49-2	Selenium	2.2	U		P
7440-22-4	Silver	0.60	U		P
7440-23-5	Sodium	5000			P
7440-28-0	Thallium	2.1	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	0.97	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW36D-97C

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW36D-97C
Project # 00000-000-000-0000
Lab ID: 9707G045-008
Sample Date: 07/27/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	180	mg/L	10
Total Suspended Solid	7	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW37D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-004

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM12

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

Column: (pack/cap) CAP Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	50	U
75-01-4	Vinyl chloride	50	U
74-83-9	Bromomethane	50	U
75-00-3	Chloroethane	50	U
75-35-4	1,1-Dichloroethene	50	U
75-09-2	Methylene chloride	50	U
75-34-3	1,1-Dichloroethane	50	U
67-66-3	Chloroform	50	U
71-55-6	1,1,1-Trichloroethane	50	U
56-23-5	Carbon tetrachloride	50	U
71-43-2	Benzene	50	U
107-06-2	1,2-Dichloroethane	50	U
79-01-6	Trichloroethene	88	
78-87-5	1,2-Dichloropropane	50	U
75-27-4	Bromodichloromethane	50	U
108-88-3	Toluene	50	U
79-00-5	1,1,2-Trichloroethane	50	U
127-18-4	Tetrachloroethene	50	U
124-48-1	Dibromochloromethane	50	U
108-90-7	Chlorobenzene	50	U
100-41-4	Ethylbenzene	50	U
100-42-5	Styrene	50	U
75-25-2	Bromoform	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
10061-02-6	trans-1,3-Dichloropropene	50	U
67-64-1	Acetone	50	U
78-93-3	2-Butanone	50	U
75-15-0	Carbon Disulfide	50	U
108-10-1	4-Methyl-2-pentanone	50	U
591-78-6	2-Hexanone	50	U
540-59-0	1,2-Dichloroethene (total)	230	
1330-20-7	Xylene (total)	50	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW37D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-004

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM12

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

Column: (pack/cap) CAP Dilution Factor: 5.0

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
G96304

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-004

Level (low/med): LOW__ Date Received: 07/24/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	42.2	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	14.4	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	68700			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	726			P_
7439-92-1	Lead_____	1.5	U		P_
7439-95-4	Magnesium	1770	B		P_
7439-96-5	Manganese	11.4	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.89	B		P_
7440-09-7	Potassium	1650	B	E	P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	7440			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	0.98	B		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:
IR06-GW37D-97C_____

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

Attn: **Mr. Don Joiner**

Date: Monday August 18th, 1997

RE: **IR06-GW37D-97C**
Project # 00000-000-000-0000
Lab ID: **9707G963-004**
Sample Date: 07/23/97
Date Received: 07/24/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	220	mg/L	10
Total Suspended Solid	5	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW38D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-002

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX02

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW38D-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-002

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX02

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 07/31/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04502

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-002

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	86.4	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	0.50	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	2190	B		P_
7440-47-3	Chromium_	0.81	B		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	16.1	U		P_
7439-92-1	Lead_____	1.6	B	*	P_
7439-95-4	Magnesium	1190	B		P_
7439-96-5	Manganese	0.60	U		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.2	B		P_
7440-09-7	Potassium	11200			P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	172000			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	2.3	B		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_	_____	___

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW38D-97C_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW38D-97C
Project # 00000-000-000-0000
Lab ID: 9707G045-002
Sample Date: 07/26/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	500		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW40DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-008

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM17

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW40DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-008

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM17

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96308

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-008

Level (low/med): LOW__ Date Received: 07/26/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	59.1	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	7.8	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	55500			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron____	612			P_
7439-92-1	Lead____	1.5	U		P_
7439-95-4	Magnesium	1290	B		P_
7439-96-5	Manganese	14.1	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	1140	B	E	P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	3880	B		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc____	0.71	B		P_
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	___

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW40DW-97_____

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

Attn: **Mr. Don Joiner**

Date: Monday August 18th, 1997

RE: **IR06-GW40DW-97C**
Project # 00000-000-000-0000
Lab ID: **9707G963-008**
Sample Date: 07/24/97
Date Received: 07/26/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	120		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-GW4
ODWA-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-013

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM31

Level: (low/med) LOW Date Received: 07/26/97

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

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-GW4
0DWA-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-013

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM31

Level: (low/med) LOW Date Received: 07/26/97

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

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96316

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-016

Level (low/med): LOW__ Date Received: 07/28/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	122	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	4.1	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.49	B		P_
7440-70-2	Calcium__	12300			P_
7440-47-3	Chromium_	1.1	B		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	182			P_
7439-92-1	Lead_____	3.2			P_
7439-95-4	Magnesium	9500			P_
7439-96-5	Manganese	5.1	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.9	B		P_
7440-09-7	Potassium	31700		E	P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	479000			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	1.4	B		P_
_____	Cyanide__	_____			NR
_____	_____	_____			___

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR06-GW40DWA-9_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR06-GW40DWA-97C
Project # 00000-000-000-0000
Lab ID: 9707G963-016
Sample Date: 07/25/97
Date Received: 07/28/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	1600	mg/L	10
Total Suspended Solid	12	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR82-GW02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-013

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX15

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR82-GW02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-013

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX15

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G04513

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G04501

Matrix (soil/water): WATER Lab Sample ID: 9707G045-013

Level (low/med): LOW__ Date Received: 07/29/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	486	_		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	36.3	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	72400	_		P_
7440-47-3	Chromium_	1.0	B		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron_____	5740	_		P_
7439-92-1	Lead_____	1.5	U	*	P_
7439-95-4	Magnesium	6120	_		P_
7439-96-5	Manganese	46.7	_		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	1.7	B		P_
7440-09-7	Potassium	489	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	55000	_		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	2.5	B		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		___

Color Before: YELLOW___ Clarity Before: CLEAR_ Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

IR82-GW02-97C_____

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

Attn: **Mr. Don Joiner**

Date: Monday August 18th, 1997

RE: **IR82-GW02-97C**
Project # 00000-000-000-0000
Lab ID: **9707G045-013**
Sample Date: 07/27/97
Date Received: 07/29/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	500	mg/L	10
Total Suspended Solid	19	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR82-GW03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-003

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM11

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR82-GW03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-003

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM11

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/06/97

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G96303

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G96301

Matrix (soil/water): WATER Lab Sample ID: 9707G963-003

Level (low/med): LOW__ Date Received: 07/24/97

% Solids: __0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	5280			P
7440-36-0	Antimony_	1.9	U		P
7440-38-2	Arsenic__	2.5	U		P
7440-39-3	Barium___	66.3	B		P
7440-41-7	Beryllium	0.58	B		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	3260	B		P
7440-47-3	Chromium_	0.70	U		P
7440-48-4	Cobalt___	7.0	B		P
7440-50-8	Copper___	0.50	U		P
7439-89-6	Iron_____	3440			P
7439-92-1	Lead_____	1.5	U		P
7439-95-4	Magnesium	4950	B		P
7439-96-5	Manganese	122			P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	11.0	B		P
7440-09-7	Potassium	1010	B	E	P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.60	U		P
7440-23-5	Sodium___	7030			P
7440-28-0	Thallium_	2.1	U		P
7440-62-2	Vanadium_	0.80	U		P
7440-66-6	Zinc_____	37.0			P
_____	Cyanide__				NR
_____	_____				

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

IR82-GW03-97C_____

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

Attn: Mr. Don Joiner

Date: Monday August 18th, 1997

RE: IR82-GW03-97C
Project # 00000-000-000-0000
Lab ID: 9707G963-003
Sample Date: 07/23/97
Date Received: 07/24/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	130	mg/L	10
Total Suspended Solid	5	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR06-TB01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-005

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM08

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/05/97

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-TB01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-005

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM08

Level: (low/med) LOW Date Received: 07/24/97

% Moisture: not dec. _____ Date Analyzed: 08/05/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR06-TB02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-014

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM24

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-TB02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-014

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM24

Level: (low/med) LOW Date Received: 07/26/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR06-TB03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-020

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM25

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-TB03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G963

Matrix: (soil/water) WATER Lab Sample ID: 9707G963-020

Sample wt/vol: 25.00 (g/mL) ML Lab File ID: CBM25

Level: (low/med) LOW Date Received: 07/28/97

% Moisture: not dec. _____ Date Analyzed: 08/07/97

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

IR06-TB04-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-014

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX16

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

IR06-TB04-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 07G045

Matrix: (soil/water) WATER Lab Sample ID: 9707G045-014

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CAX16

Level: (low/med) LOW Date Received: 07/29/97

% Moisture: not dec. _____ Date Analyzed: 08/09/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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ATTACHMENT E
MONTHLY REMEDIAL SYSTEM PROGRESS REPORTS

Monthly Report – January 1997
Groundwater Treatment Plant
Lot 203

Contract N62420-93-D-3032 Delivery Order 015	
Period of Performance Duration	1/1 - 1/31/97 31 days
Product Recovery Previously reported Current period Total to date	 0 0 0
Treated Groundwater	
Estimated rate Duration Estimated Total treated this period	212 gpm 30 days 9,159,800 gallons
Treatment System Performance	
1. Changed cartridge filters 9 times. 2. Plant was down a total of 25 hours due to correcting a FCV & filter changes. 3. Normal maintenance has included filter changes weekly , oil changes for air compressor, backwashing sand filters and carbon units, and solids management.	
Comments and Recommendations	
1. The volumes of treated groundwater have been based upon actual readings from the flowmeter installed. 2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.	
February11, 1997	
Prepared by: James E. Dunn, Jr., P.E. Date Senior Project Manager	

Camp LeJeune

Groundwater Treatment Plant
Monthy Monitoring Results
Month: Jan., 1997

Project # 16032

Sample Point	CLJINS-004	CLJIND-004	CLJAS-004	CLJEF-004	CLJEF-004D	TB
Date Sampled	1/15/97	1/15/97	1/15/97	1/15/97	1/15/97	N/A
Date Analyzed	1/23/97	1/23/97	1/23/97	1/23/97	1/23/97	1/22/97

Volatiles 8021*	Results in mg/l					
1,2-Dichloroethane	<0.004	<0.100	<0.0002	<0.0002	<0.0002	<0.0002
trans-1,2-Dichloroethene	<0.001	1.17	<0.001	<0.001	<0.001	<0.001
Tetrachloroethylene	<0.0004	0.114	<0.0004	<0.0004	<0.0004	<0.0004
Trichloroethylene	0.016	8.33	0.001	0.002	0.002	<0.001
Vinyl chloride	<20	<0.500	<0.001	<0.001	<0.001	<0.001
Ethylbenzene	<20	<0.500	<0.001	<0.001	<0.001	<0.001

Metals	Method	Results in mg/l					
Arsenic	7060	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	N/A
Barium	6010A	0.014	0.006	0.006	0.006	0.004	N/A
Beryllium	6010A	<0.001	<0.001	<0.001	<0.001	<0.001	N/A
Chromium	6010A	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	N/A
Iron	6010A	0.11	0.60	0.49	0.083	0.23	N/A
Lead	7421	0.001	<0.001	0.002	0.001	0.003	N/A
Manganese	6010A	0.003	0.014	0.009	0.002	0.005	N/A
Mercury	7470A	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	N/A
Vanadium	6010A	<0.0035	<0.0035	<0.0035	<0.0035	<0.0035	N/A

Wet Chemistry	Method	Results in mg/l					
TDS	160.1	204	186	N/A	191	183	N/A
TSS	160.2	9.00	<1.00	N/A	2.00	3.00	N/A

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
P/F: Passed/Failed

Comments: _____

_____

Verified by: S. Parasnjape
Date: 2/5/97

N\Sushama\lejuene\16032\
wwtpjan97-2

Released by: S Parasnjape
Date: 2/5/97

Monthly Report – February 1997
Groundwater Treatment Plant
Lot 203

Contract N62420-93-D-3032 Delivery Order 015	
Period of Performance Duration	2/1 - 2/28/97 28 days
Product Recovery Previously reported Current period Total to date	 0 0 0
Treated Groundwater	
Estimated rate Duration Estimated Total treated this period	217 gpm 26.75 days 8,359,484 gallons
Treatment System Performance	
1. Changed cartridge filters 8 times. 2. Plant was down a total of 80 hours due to changeout of well pumps DRW - 2 & DRW - 3. 3. Normal maintenance has included filter changes weekly , oil changes for air compressor, backwashing sand filters and carbon units, and solids management.	
Comments and Recommendations	
1. The volumes of treated groundwater have been based upon actual readings from the flowmeter installed. 2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.	
March 10, 1997	
Prepared by: James E. Dunn, Jr., P.E. Date Senior Project Manager	

Camp LeJeune

Groundwater Treatment Plant
Monthy Monitoring Results
Month:Feb 1997

Project # 16032

Sample Point	CLJINS-005	CLJIND-005	CLJAS-005	CLJEF-005	CLJEF-005D
Date Sampled	2/13/97	2/13/97	2/13/97	2/13/97	2/13/97
Date Analyzed	2/20/97	2/20/97	2/20/97	2/20/97	2/20/97

Volatiles	**8021***	**Results in mg/l**				
1,2-Dichloroethane		<0.010	<0.005	<0.0002	<0.0002	<0.0002
trans-1,2-Dichloroethene		0.604	1.53	<0.001	<0.001	<0.001
Tetrachloroethylene		0.394	<0.100	<0.0004	<0.004	<0.004
Trichloroethylene		2.18	14.4	0.001	0.003	0.003
Vinyl chloride		<0.050	<0.250	<0.001	<0.001	<0.001
Ethylbenzene		<0.050	<0.250	<0.001	<0.001	<0.001

Metals	**Method**	**Results in mg/l**				
Arsenic	7060	0.004	<0.002	<0.002	<0.002	<0.002
Barium	6010A	0.059	0.01	<0.010	0.01	0.011
Beryllium	6010A	<0.005	<0.005	<0.005	<0.005	<0.005
Chromium	6010A	<0.010	<0.010	<0.010	<0.010	<0.010
Lead	7421	0.003	<0.001	0.001	<0.001	<0.001
Manganese	6010A	0.046	<0.015	<0.015	<0.015	<0.015
Mercury	7470A	<0.0001	<0.00013	<0.00013	<0.00013	<0.00013
Vanadium	6010A	<0.050	<0.050	<0.050	<0.050	<0.050

Wet Chemistry	**Method**	**Results in mg/l**				
TDS	160.1	128	151	N/A	208	213
TSS	160.2	20.0	3.0	N/A	<1.00	<1.00
pH	9040	7.03	8.21	N/A	8.43	8.37

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

Notes: All positive volatile results were confirmed by GC/MS Method 8260
P/F: Pass/Fail
N/A: Not Applicable

Comments: _____

_____

Verified by: _____
Date: _____

Released by: S. Parenjape
Date: 10/21/97

Monthly Report – March 1997
Groundwater Treatment Plant
Lot 203

Contract N62420-93-D-3032 Delivery Order 015	
Period of Performance Duration	3/1 - 3/31/97 31 days
Product Recovery Previously reported Current period Total to date	 0 0 0
Treated Groundwater	
Estimated rate Duration Estimated Total treated this period	276.5 gpm 26 days 10,353,500 gallons
Treatment System Performance	
1. Changed cartridge filters 9 times. 2. Plant was down a total of 120 hours due to filter changes and cleaning tanks T-110 & T - 220. 3. Normal maintenance has included filter changes weekly , oil changes for air compressor, backwashing sand filters and carbon units, and solids management.	
Comments and Recommendations	
1. The volumes of treated groundwater have been based upon actual readings from the flowmeter installed. 2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.	
April 11, 1997	
Prepared by: James E. Dunn, Jr., P.E. Date Senior Project Manager	

Camp LeJeune

Groundwater Treatment Plant
Monthy Monitoring Results
Month:March 1997

Project # 16032

Sample Point	CLJINS-006	CLJIND-006	CLJAS-006	CLJEF-006	CLJEF-006D
Date Sampled	3/18/97	3/18/97	3/18/97	3/18/97	3/18/97
Date Analyzed	3/25/97	3/25/97	3/25/97	3/25/97	3/25/97

Volatiles **8021***	**Results in mg/l**				
1,2-Dichloroethane	<0.100	<0.005	<0.0002	<0.0002	<0.0002
trans-1,2-Dichloroethene	1.82	0.063	<0.001	<0.001	<0.001
Tetrachloroethylene	0.276	0.135	<0.0004	<0.004	<0.004
Trichloroethylene	17.5	0.393	0.00162	0.00957	0.00903
Vinyl chloride	<0.500	<0.025	<0.001	<0.001	<0.001
Ethylbenzene	<0.500	<0.025	<0.001	<0.001	<0.001

Metals **Method**	**Results in mg/l**				
Arsenic 7060	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
Barium 6010A	0.0105	0.0349	0.0111	0.0113	0.0107
Beryllium 6010A	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium 6010A	<0.0044	0.0118	0.00482	<0.0044	<0.0044
Lead 7421	0.00124	0.00302	<0.001	<0.001	<0.001
Manganese 6010A	0.0179	0.0544	0.0274	0.00175	<0.0012
Mercury 7470A	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
Vanadium 6010A	<0.0035	<0.0035	<0.0035	<0.0035	<0.0035

Wet Chemistry **Method**	**Results in mg/l**				
TDS 160.1	232	151	N/A	244	254
TSS 160.2	<1	3.0	N/A	<1.0	<1.0
pH 150.1	7.74	6.87	N/A	7.98	8.15

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

Notes: All positive volatile results were confirmed by GC/MS Method 8260
P/F: Pass/Fail
N/A: Not Applicable

Comments: _____

_____

Verified by: _____
Date: _____

Released by: S. Parsonage
Date: 10/2/97

Monthly Report – April 1997
Groundwater Treatment Plant
Lot 203

Contract N62420-93-D-3032 Delivery Order 015	
Period of Performance Duration	4/1 - 4/30/97 30 days
Product Recovery Previously reported Current period Total to date	 0 0 0
Treated Groundwater	
Estimated rate Duration Estimated Total treated this period	250.8 gpm 27.75 days 10,021,980 gallons
Treatment System Performance	
1. Changed cartridge filters 12 times. Began surging shallow train. 2. Plant was down a total of 54 hours due to filter changes and telemetry failure of DMW - 1. 3. Normal maintenance has included filter changes weekly , oil changes for air compressor, backwashing sand filters and carbon units, and solids management.	
Comments and Recommendations	
1. The volumes of treated groundwater have been based upon actual readings from the flowmeter installed. 2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.	
May 9, 1997	
Prepared by: James E. Dunn, Jr., P.E. Date Senior Project Manager	

Camp LeJeune

Groundwater Treatment Plant
Monthy Monitoring Results
Month:April 1997

Project # 16032

Sample Point	CLJINS-007	CLJIND-007	CLJAS-007	CLJEF-007	CLJEF-007D
Date Sampled	4/17/97	4/17/97	4/17/97	4/17/97	4/17/97
Date Analyzed	4/24/97	4/24/97	4/24/97	4/24/97	4/24/97

Volatiles	**8021***	**Results in mg/l**				
1,2-Dichloroethane		<0.05	<0.1	<0.0002	<0.0002	<0.0002
trans-1,2-Dichloroethene		0.5	1.3	<0.001	0.0004	0.0003
Tetrachloroethylene		0.3	0.19	<0.0004	0.0002	0.0002
Trichloroethylene		1.9	120	0.009	0.019	0.017
Vinyl chloride		<0.3	<0.5	<0.001	<0.001	<0.001
Ethylbenzene		<0.3	<0.5	<0.001	<0.001	<0.001

Metals	**Method**	**Results in mg/l**				
Arsenic	7060	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
Barium	6010A	0.045	0.0099	0.0104	0.0133	0.0133
Beryllium	6010A	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	6010A	<0.0044	<0.0044	0.0167	<0.0044	<0.0044
Lead	7421	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	6010A	0.0421	0.015	0.0178	0.0018	<0.0012
Mercury	7470A	<0.0002	<0.0002	<0.0002	<0.0002	0.0002
Vanadium	6010A	<0.0035	<0.0035	<0.0035	<0.0035	<0.0035

Wet Chemistry	**Method**	**Results in mg/l**				
TDS	160.1	121	203	N/A	221	220
TSS	160.2	10.0	3.0	N/A	1	1
pH	150.1	6.60	7.74	N/A	7.95	7.97

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

Notes: All positive volatile results were confirmed by GC/MS Method 8260
P/F: Pass/Fail
N/A: Not Applicable

Comments: _____

_____

Verified by: _____
Date: _____

Released by: S. Pasanjipe
Date: 10/3/97

Monthly Report – May 1997
Groundwater Treatment Plant
Lot 203

Contract N62420-93-D-3032 Delivery Order 015	
Period of Performance Duration	5/1 - 5/30/97 30 days
Product Recovery Previously reported Current period Total to date	 0 0 0
Treated Groundwater	
Estimated rate Duration Estimated Total treated this period	131.9 gpm 27.75days 5,271,100 gallons
Treatment System Performance	
1. Changed cartridge filters 12 times. Continue surging shallow train. 2. Plant was down a total of 54 hours due to filter changes, telemetry failure, & pressure switch changeout. 3. Normal maintenance has included filter changes weekly , oil changes for air compressor, backwashing sand filters and carbon units, and solids management.	
Comments and Recommendations	
1. The volumes of treated groundwater have been based upon actual readings from the flowmeter installed. 2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.	
June 9, 1997	
Prepared by: James E. Dunn, Jr., P.E. Date Senior Project Manager	

Camp LeJeune

Groundwater Treatment Plant
Monthy Monitoring Results
Month: May 1997

Project # 16032

Sample Point	CLJINS-008	CLJIND-008	CLJAS-008	CLJEF-008	CLJEF-008D
Date Sampled	5/20/97	5/20/97	5/20/97	5/20/97	5/20/97
Date Analyzed	5/27/97	5/27/97	5/27/97	5/27/97	5/27/97

Volatiles 8021* **Results in mg/l**

Volatiles 8021*					
1,2-Dichloroethane	<0.010	<0.100	<0.0002	<0.0002	<0.0002
trans-1,2-Dichloroethene	0.23	2.1	<0.001	<0.001	<0.001
Tetrachloroethylene	0.14	0.28	0.0004	<0.0004	<0.0004
Trichloroethylene	1.1	13	<0.0007	0.027	0.025
Vinyl chloride	<0.050	0.13	<0.001	<0.001	<0.001
Ethylbenzene	<0.050	<0.300	<0.001	<0.001	<0.001

Metals Method **Results in mg/l**

Metals	Method					
Arsenic	7060	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
Barium	6010A	0.0437	0.0123	0.0125	0.0118	0.0125
Beryllium	6010A	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	6010A	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044
Lead	7421	0.0018	0.0016	<0.001	<0.001	<0.001
Manganese	6010A	0.0329	0.0172	0.0861	0.0066	0.0085
Mercury	7470A	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Vanadium	6010A	<0.0035	<0.0035	<0.0035	<0.0035	<0.0035

Wet Chemistry Method **Results in mg/l**

Wet Chemistry	Method					
TDS	160.1	128	227	N/A	215	214
TSS	160.2	1.0	1.0	N/A	<1.0	<1.0
pH	150.1	6.80	7.76	N/A	7.82	7.83

QC

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

Notes: All positive volatile results were confirmed by GC/MS Method 8260
P/F: Pass/Fail
N/A: Not Applicable

Comments: ______________________________

Verified by: ____________
Date: ____________

Released by: S. Pasarjepe
Date: 10/3/97

Monthly Report – June 1997
Groundwater Treatment Plant
Lot 203

Contract N62420-93-D-3032 Delivery Order 015	
Period of Performance Duration	6/1 - 6/30/97 30 days
Product Recovery Previously reported Current period Total to date	 0 0 0
Treated Groundwater	
Estimated rate Duration Estimated Total treated this period	243.7 gpm 26.75 days 9,390,100 gallons
Treatment System Performance	
1. Changed cartridge filters 9 times. 2. Plant was down a total of 78 hours due to surging of shallow well train associated with low groundwater levels. 3. Normal maintenance has included filter changes weekly , oil changes for air compressor, backwashing sand filters and carbon units, and solids management.	
Comments and Recommendations	
1. The volumes of treated groundwater have been based upon actual readings from the flowmeter installed. 2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.	
July 10, 1997	
Prepared by: James E. Dunn, Jr., P.E. Date Senior Project Manager	

Camp LeJeune

Groundwater Treatment Plant
Monthy Monitoring Results
Month:June 1997

Project # 16032

Sample Point	CLJINS-009	CLJIND-009	CLJAS-009	CLJEF-009	CLJEF-009D
Date Sampled	6/17/97	6/17/97	6/17/97	6/17/97	6/17/97
Date Analyzed	6/25/97	6/25/97	6/25/97	6/25/97	6/25/97

Volatiles **8021***	**Results in mg/l**				
1,2-Dichloroethane	<0.010	<0.100	<0.0002	<0.0002	<0.0002
trans-1,2-Dichloroethene	0.29	1.6	<0.001	<0.001	<0.001
Tetrachloroethylene	0.14	<0.200	<0.0004	<0.0004	<0.0004
Trichloroethylene	1.1	15	<0.0007	0.041	0.042
Vinyl chloride	<0.050	<0.500	<0.001	<0.001	<0.001
Ethylbenzene	<0.050	<0.500	<0.001	<0.001	<0.001

Metals	**Method**	**Results in mg/l**				
Arsenic	7060	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
Barium	6010A	0.0126	0.0135	<0.002	0.012	0.01
Beryllium	6010A	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	6010A	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044
Lead	7421	<0.0001	<0.0001	0.0015	<0.001	<0.001
Manganese	6010A	0.0045	0.025	<0.0012	0.002	0.041
Mercury	7470A	<0.0002	<0.0002	<0.0002	<0.00013	<0.00013
Vanadium	6010A	0.0044	0.0036	<0.0035	<0.0035	0.0041

Wet Chemistry	**Method**	**Results in mg/l**				
TDS	160.1	353	321	N/A	650	666
TSS	160.2	2.0	1.0	N/A	2.0	1.0
pH	150.1	6.98	7.94	N/A	8.26	8.26

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

Notes: All positive volatile results were confirmed by GC/MS Method 8260
P/F: Pass/Fail
N/A: Not Applicable

Comments: _____

_____

Verified by: _____
Date: _____

Released by: S. Paeonjape
Date: 10/3/97

Monthly Report – July 1997
Groundwater Treatment Plant
Lot 203

Contract N62420-93-D-3032 Delivery Order 015	
Period of Performance Duration	7/1 - 7/31/97 31 days
Product Recovery Previously reported Current period Total to date	 0 0 0
Treated Groundwater	
Estimated rate Duration Estimated Total treated this period	371.5 gpm 25.75 days 13,776,400 gallons
Treatment System Performance	
1. Changed cartridge filters 8 times. 2. Plant was down a total of 126 hours due to power outage. 3. Normal maintenance has included filter changes weekly , oil changes for air compressor, backwashing sand filters and carbon units, and solids management.	
Comments and Recommendations	
1. The volumes of treated groundwater have been based upon actual readings from the flowmeter. 2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.	
August 9, 1997	
Prepared by: James E. Dunn, Jr., P.E. Date Senior Project Manager	

Groundwater Treatment Plant
Monthy Monitoring Results
Month: July 1997

Sample Point	CLJINS-010	CLJIND-010	CLJAS-010	CLJEF-010	CLJEF-010D
Date Sampled	7/17/97	7/17/97	7/17/97	7/17/97	7/17/97
Date Analyzed	8/1/97	8/1/97	8/1/97	8/1/97	8/1/97

Volatiles 8021* **Results in mg/l**

1,2-Dichloroethane	<0.01	<0.010	<0.0002	<0.0002	<0.0002
trans-1,2-Dichloroethene	0.25	1.9	<0.001	<0.001	<0.001
Tetrachloroethylene	0.12	0.04	<0.0004	<0.0004	<0.0004
Trichloroethylene	1.1	12	<0.001	0.049	0.044
Vinyl chloride	<0.02	0.17	<0.0005	<0.0005	<0.0005
Ethylbenzene	<0.05	<0.05	<0.001	<0.001	<0.001

Metals **Method** **Results in mg/l**

Arsenic	7060	<0.0019	0.0023	<0.0019	<0.0019	<0.0019
Barium	6010A	0.0097	0.0279	0.0112	0.0129	0.01
Beryllium	6010A	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	6010A	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
Lead	7421	0.0086	0.0041	0.0016	0.0026	<0.0011
Manganese	6010A	0.0131	0.0283	0.0122	0.0015	0.0044
Mercury	7470A	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Vanadium	6010A	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048

Wet Chemistry Method **Results in mg/l**

TDS	160.1	97	172	N/A	196	213
TSS	160.2	<1	<1	N/A	<1.00	<1.00
pH	150.1	6.5	7.70	N/A	8.21	8.18

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

Notes: All positive volatile results were confirmed by GC/MS Method 8260
P/F: Pass/Fail
N/A: Not Applicable

Comments: ______________________

Verified by: ____________
Date: ____________

Released by: S. Pacanyiye
Date: 10/3/97

Monthly Report – August 1997
Groundwater Treatment Plant
Lot 203

Contract N62420-93-D-3032 Delivery Order 015	
Period of Performance Duration	8/1 - 8/28/97 28 days
Product Recovery Previously reported Current period Total to date	 0 0 0
Treated Groundwater	
Estimated rate Duration Estimated Total treated this period	344.7 gpm 26 days 12,907,100 gallons
Treatment System Performance	
1. Changed cartridge filters 7 times. 2. Plant was down a total of 52 hours due to power outage and low pressure problem. 3. Normal maintenance has included filter changes weekly , oil changes for air compressor, backwashing sand filters and carbon units, and solids management.	
Comments and Recommendations	
1. The volumes of treated groundwater have been based upon actual readings from the flowmeter installed. 2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.	
September 9, 1997	
Prepared by: James E. Dunn, Jr., P.E. Date Senior Project Manager	

Camp LeJeune

Groundwater Treatment Plant
Monthy Monitoring Results
Month:August 1997

Project # 16032

Sample Point	CLJINS-011	CLJIND-011	CLJAS-011	CLJEF-011	CLJEF-011D
Date Sampled	8/27/97	8/27/97	8/27/97	8/27/97	8/27/97
Date Analyzed	9/2/97	9/2/97	9/2/97	9/2/97	9/2/97

Volatiles	**8021***	**Results in mg/l**				
1,2-Dichloroethane		<0.100	<0.100	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene		0.79	1.9	<0.001	<0.001	<0.001
Tetrachloroethylene		0.41	<0.001	<0.001	<0.001	<0.001
Trichloroethylene		3.3	12.0	0.0012	0.055	0.039
Vinyl chloride		<0.001	<0.001	<0.001	<0.001	<0.001
Ethylbenzene		<0.002	<0.002	<0.002	<0.002	<0.002

Metals	**Method**	**Results in mg/l**				
Arsenic	**6010A	<0.600 **	<0.600 **	<0.600 **	<0.600 **	<0.600 **
Barium	6010A	0.0511	<0.020	<0.020	<0.020	<0.020
Beryllium	6010A	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium	6010A	<0.070	<0.070	<0.070	<0.070	<0.070
Lead	**6010A	<0.500 **	<0.500 **	<0.500 **	<0.500 **	<0.500 **
Manganese	6010A	0.0455	<0.020	<0.020	<0.020	<0.020
Mercury	7470A	<0.0002	0.000322	<0.0002	0.000213	<0.0002
Vanadium	6010A	<0.080	<0.080	<0.080	<0.080	<0.080

Wet Chemistry	**Method**	**Results in mg/l**				
TDS	160.1	70	185	N/A	175	190
TSS	160.2	<10	<10	N/A	<10	<10
pH	150.1	6.7	7.10	N/A	7.4	7.4

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

Notes: All positive volatile results were confirmed by GC/MS Method 8260
P/F: Pass/Fail
N/A: Not Applicable

Comments: ** Lead and Arsenic samples are being re-analyzed by GFAA for lower detection limits.

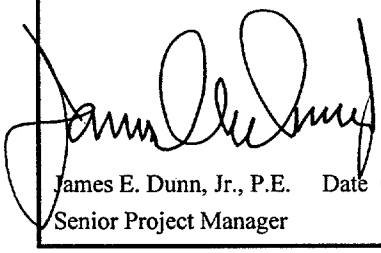
Verified by: _____
Date: _____

Released by: S. Parzygnat
Date: 10/3/97

Monthly Report – September 1997

Groundwater Treatment Plant

Lot 203

Contract N62420-93-D-3032 Delivery Order 015	
Period of Performance	9/1 -96/30/97
Duration	30 days
Product Recovery	
Previously reported	0
Current period	0
Total to date	0
Treated Groundwater	
Estimated rate	324.6 gpm
Duration	22.5 days
Estimated Total treated this period	10,516,700 gallons
Treatment System Performance	
1. Changed cartridge filters 6 times. 2. Plant was down a total of 180 hours due to power outages, one circuit breaker leg out, fuses and FCV switch 3. Normal maintenance has included filter changes weekly , oil changes for air compressor, back-washing sand filters and carbon units, and solids management. 4. At month end all wells were on-line and operating.	
Comments and Recommendations	
1. The volumes of treated groundwater have been based upon actual readings from the flowmeter. 2. Attached is tabular analytical data for the sampling events which occurred during the reporting period.	
Prepared by:  James E. Dunn, Jr., P.E. Date October 3, 1997 Senior Project Manager	

Camp LeJeune

Groundwater Treatment Plant
Monthy Monitoring Results
Month:Sept. 1997

Project # 16032

Sample Point	CLJINS-012	CLJIND-012	CLJAS-012	CLJEF-012	CLJEF-012D
Date Sampled	9/17/97	9/17/97	9/17/97	9/17/97	9/17/97
Date Analyzed	9/24/97	9/24/97	9/24/97	9/24/97	9/24/97

Volatiles **8021***	**Results in mg/l**				
1,2-Dichloroethane	<0.001	<0.500	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	0.210	2.0	<0.001	<0.001	<0.001
Tetrachloroethylene	0.150	<0.500	<0.001	<0.001	<0.001
Trichloroethylene	1.300	11.0	<0.001	<0.001	0.035
Vinyl chloride	<0.100	<0.500	<0.001	<0.001	<0.001
Ethylbenzene	<0.002	<0.002	<0.002	<0.002	<0.002

Metals **Method**	**Results in mg/l**				
Arsenic **6010A	<0.600**	<0.600**	<0.600**	<0.600**	<0.600**
Barium 6010A	0.0252	<0.020	<0.020	<0.020	<0.020
Beryllium 6010A	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium 6010A	<0.070	<0.070	<0.070	<0.070	<0.070
Lead **6010A	<0.500**	<0.500**	<0.500**	<0.500**	<0.500**
Manganese 6010A	0.0376	<0.020	<0.020	<0.020	<0.020
Mercury 7470A	<0.0002	<0.0002	<0.0002	0.000489	<0.0002
Vanadium 6010A	<0.080	<0.080	<0.080	<0.080	<0.080

Wet Chemistry **Method**	**Results in mg/l**				
TDS 160.1	85	160	N/A	70	245
TSS 160.2	<10	<10	N/A	<10	<10
pH 150.1	6.4	7.0	N/A	7.5	7.2

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

Notes: All positive volatile results were confirmed by GC/MS Method 8260
P/F: Pass/Fail
N/A: Not Applicable

Comments: ** Lead and Arsenic samples are being re-analyzed by GFAA for lower detection limits.

Verified by: _____
Date: _____

Released by: S Pasanjap
Date: 10/3/97