# 06.07-09/10/99-02338

# MONITORING REPORT

OPERABLE UNIT NO. 1 - SITE 78 MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA

# **REPORTING PERIOD JANUARY 1999 – JUNE 1999**

## **CONTRACT TASK ORDER 0367**

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Prepared by:

BAKER ENVIRONMENTAL, INC. Coraopolis, Pennsylvania

## PREFACE

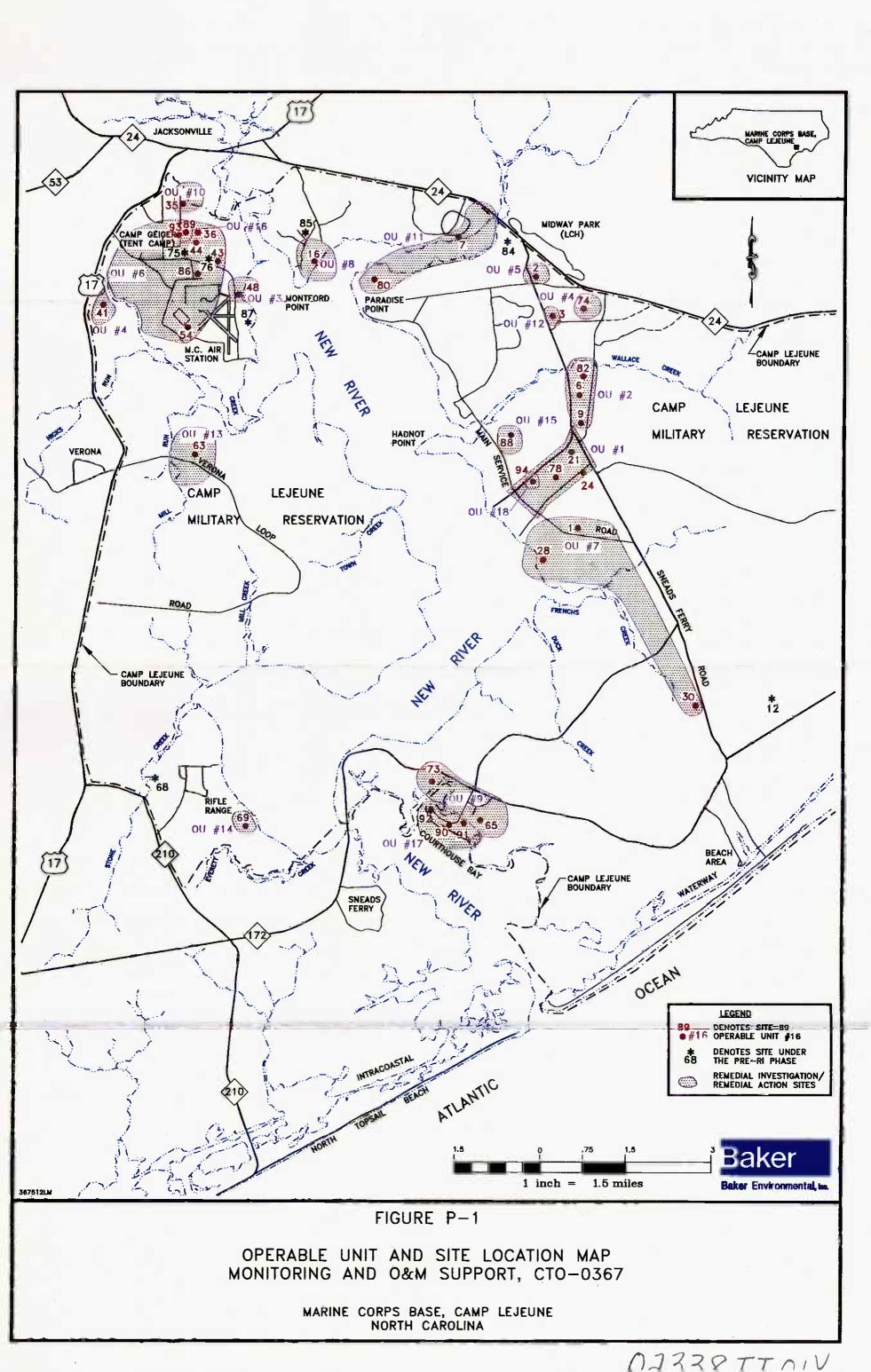
The semiannual monitoring reports that are presented herein describe the procedures, analytical findings, and subsequent recommendations of the monitoring program at Operable Unit (OU) No. 1 (Site 78), Marine Corps Base (MCB), Camp Lejeune, North Carolina. Figure P-1 depicts the location of OU 1. The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

The monitoring program at OU 1 was implemented in response to the Record of Decision (ROD) document signed by MCB, Camp Lejeune on September 15, 1994 (Baker, 1994a). The ROD for OU 1 stipulated 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 1 are as follows: (1) monitor the potential for human or ecological exposure due to off-site migration of contaminants, and (2) evaluate the effectiveness of the groundwater treatment systems. The semiannual monitoring reports document the findings and provide interested parties with information required to authorize future decisions regarding OU 1. The information presented in the reports will be used to either extend, modify, or discontinue the monitoring program as necessary.

#### REFERENCES

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



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D Monthly Remedial System Progress Reports

## **MONITORING REPORT**

The monitoring report that follows presents a summary of sampling activities, field observations, analytical results, and significant findings that pertain to the monitoring program and groundwater treatment systems at Operable Unit (OU) No. 1, Marine Corps Base (MCB) Camp Lejeune, North Carolina. The report describes sampling activities completed at Site 78 during January 1999. Conclusions and recommendations concerning the monitoring program and groundwater treatment systems at Site 78 are also presented within this report.

Monitoring activities at OU 1 began on a quarterly basis in July 1995 and have continued on a semiannual basis since July 1997. The most recent sampling initiative at OU 1 commenced January 16, 1999 and concluded January 19, 1999. Sampling at Site 78 involved the collection of groundwater samples from 18 shallow (less than 25 feet below ground surface (bgs), 2 intermediate (between 60 and 75 feet bgs), and 2 deep (greater than 100 feet bgs) monitoring wells. Figure 1 depicts all shallow, intermediate, and deep groundwater monitoring wells at Site 78 and indicates monitoring wells included in the monitoring program. [Note that all tables, figures, and attachments 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 1 (Baker, 1996). The project work plans identify a select number of monitoring wells at Site 78 for which continued periodic sampling is required. Three additional permanent monitoring wells were installed and sampled beginning in November 1998, based upon recommendations provided in previous monitoring reports. These wells will further define the horizontal extent of contamination in the northern and southern portions of Site 78. Figure 1 depicts the locations of all monitoring wells sampled during the semiannual event. Table 1 provides construction details of the permanent monitoring wells associated with Site 78. As stipulated in the project work plans, measurements of pH, specific conductance, dissolved oxygen, temperature, and turbidity were recorded prior to sampling. Summaries of all groundwater field parameters are provided in Table 2.

The monitoring program at Site 78 was implemented to assess whether contamination, detected during previous investigations, remains present, has migrated, has degraded through natural processes, or has been eliminated through groundwater extraction. Based upon previous analytical results and decision documents, Volatile Organic Compounds (VOCs) were identified as contaminants of concern at Site 78. 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, and analytical parameters was recorded in a field logbook and on the sample labels. Chain-of-custody documentation, provided in Attachment A, accompanied the samples to the laboratory.

#### **Groundwater Elevation and Flow Direction**

The following provides information concerning groundwater flow patterns at Site 78. The elevation data were obtained by subtracting the measured depth to groundwater from the surveyed reference elevation.

Water level measurements at Site 78 were obtained on January 18, 1999. Table 4 provides a summary of the water level measurements and Figure 2 depicts the static elevations and approximate flow direction of shallow groundwater. The groundwater flow regime at Site 78 is relatively consistent. Groundwater flow is generally toward the west-southwest, in the direction of an unnamed tributary to Cogdels Creek and the New River. Groundwater in the southernmost portions of the study area tends to flow in a radial direction, converging in an area of the site that has a lower groundwater elevation than the rest of Site 78. As depicted in Figure 2, the area of lesser hydraulic gradient was observed at shallow monitoring well 78-GW4-1.

#### **Field Observations**

Field observations have been recorded during each groundwater sampling event. Recommendations regarding the field observations that follow are presented later within this report.

Field observations from the most recent sampling initiative did not suggest that deterioration of any monitoring wells had occurred. During each sampling event, monitoring wells are inspected for aesthetics, security, and integrity.

## ANALYTICAL RESULTS AND FINDINGS

The sections that follow present analytical results and findings from sampling performed at Site 78 during the first calendar quarter of 1999. A summary of all analytical results compiled during the sampling event are presented in Attachment B and corresponding laboratory data sheets are provided in Attachment C.

Three trip blanks were prepared prior to the sampling event, one for each day of sample collection. Trip blanks accompanied the groundwater samples during field collection, shipment, and laboratory analysis. As provided in Table 5, there were no detections of any VOCs in any of the trip blanks.

A summary of detections of VOCs in groundwater is provided in Table 6; a graphic depiction of the data is presented in Figure 3. In general, the analytical data suggest two primary areas of chlorinated solvent contamination at Site 78. The two chlorinated solvent contaminant plumes are primarily limited to the uppermost portion of the surficial aquifer. One area of groundwater contamination is located within the northern portion of the study area and the other is located within the southern portion of the study area. The northern plume area is located in the vicinity of Buildings 900, 901, 902, and 903, surrounding well 78-GW23-1. The southern plume appears to be concentrated in the area surrounding and to the south of well 78-GW09-1.

#### Southern Contaminant Plume

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In the southern plume, contamination is concentrated around well 78-GW09-1 and extends south to monitoring wells 78-GW42, 78-GW04-1, and 78-GW01. Compounds in the southern plume detected at levels exceeding both NCWQS and Federal MCLs include 1,1,1-trichloroethane, 1,1-dichloroethene, trichloroethene, and vinyl chloride. Figure 3 details contaminant concentrations and locations in both the southern and northern plumes.

Historically, the highest concentrations of VOCs detected in the southern plume were in samples obtained from 78-GW09-1. However, during the previous sampling event (third quarter of 1998), no VOCs were detected in 78-GW09-1. This most recent sampling event indicates that results obtained from 78-GW09-1 in 98C may indeed have been anomalous as suggested in the monitoring report regarding that data. Figure 4 depicts total chlorinated solvent concentrations in samples obtained from well 78-GW09-1 during the past twelve monitoring periods. Figures 5, 6, and 7 depict the concentrations of 1,2-dichloroethene (first total, now cis-), trichloroethene, and 1,1,1-trichloroethane, respectively, in samples obtained from monitoring well 78-GW09-1. Indicators of central tendency including mean and median have been calculated for each of the compounds and are provided in Figures 5 through 7.

As presented in Figure 3, one VOC was detected in the sample obtained from intermediate well 78-GW09-2, located within the southern plume. Cis-1,2-dichloroethene was detected in the sample obtained from 78-GW09-2 at a concentration of 10 micrograms per liter ( $\mu$ g/L). This is below the NCWQS and the Federal MCL for cis-1,2-dichloroethene (both 70 ug/L). Previous detections of 1,2-dichloroethene (total or speciated into cis- and trans- isomers) in monitoring well 78-GW09-2 (located 100 feet southeast of monitoring well 78-GW09-1) and surrounding shallow monitoring wells suggest that VOCs have migrated to the deeper portion of the surficial aquifer in this area of Site 78. Additional rounds of sampling at Site 78 will be employed to monitor the presence of VOCs in the intermediate zone. There have been no detections of VOCs in samples obtained from deep monitoring well 78-GW09-3, located nearly 150 feet east of 78-GW09-1.

In the last monitoring report, data indicated potential migration of the southern contaminant plume towards monitoring wells 78-GW08 and 78-GW10. This migration was contradicted by the direction of groundwater flow determined both during the calendar quarter discussed in that report (98C) and during the present calendar quarter (Figure 2). Data presented here show an absence of VOCs from both monitoring wells 78-GW08 and 78-GW10, further refuting this possibility of contaminant migration northward from monitoring well 78-GW09-1.

#### Northern Contaminant Plume

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As depicted in Figure 3, in the northern contaminant plume, a total of eight VOCs were detected at levels above North Carolina Water Quality Standards (NCWQS). These VOCs include cis-1,2dichloroethene, trans-1,2-dichlorethene, benzene, chloroform, methylene chloride, tetrachloroethene, trichloroethene, and vinyl chloride. Detections of all of these compounds, except chloroform, also exceeded Federal Maximum Contaminant Levels (MCLs). The sample obtained from monitoring well 78-GW23 had the highest concentrations of contaminants detected in the northern plume. Figure 8 depicts total chlorinated solvent concentrations in samples obtained from well 78-GW23 during the past twelve monitoring events. The increased concentration of total chlorinated solvents detected in samples obtained from monitoring well 78-GW23 during the last seven periods is the result of differing laboratory analyses; not until the third quarter of 1996 were groundwater samples submitted for 1,2-dichloroethene (total) analyses. As of the present calendar quarter (99A), 1,2dichlorethene analysis includes speciation into cis- and trans- isomers (see Implemented Recommendations). Figures 9 and 10 depict the concentrations of vinyl chloride and trichloroethene, respectively, previously detected in samples obtained from monitoring well 78-GW23. In general, concentrations of these compounds have been substantially greater than the respective water quality standards. The NCWQS for vinyl chloride is 0.015 µg/L and the median concentration of vinyl chloride in samples obtained from 78-GW23 during the twelve previous sampling initiatives is 350  $\mu$ g/L. The median concentration of trichloroethene in samples obtained from 78-GW23 is 30  $\mu$ g/L, as compared to the NCWQS of 2.8  $\mu$ g/L.

Although intermediate well 78-GW24-2 did not contain any VOCs in the present quarter, deep monitoring well 78-GW24-3 contained tetrachlorethene at a concentration of 9  $\mu$ g/L, exceeding both state and federal standards of 0.7 ug/L and 5.0 ug/L, respectively. Contamination in this deep monitoring well is notable because, with the exception of methylene chloride, there have been no VOCs detected in either the intermediate or deep monitoring well since the first calendar quarter of 1997. This data indicates potential vertical migration of contaminants of the northern plume. Additional monitoring is required to determine if vertical migration is indeed occurring, or if the present detection is anomalous.

Figures 11 and 12 depict the current horizontal extent of total VOCs in shallow groundwater in the northern and southern portions of Site 78 based upon analytical results from the most recent sampling initiative.

## **GROUNDWATER TREATMENT SYSTEM**

Two independent groundwater extraction and treatment systems, maintained by OHM Corporation, have been operating at OU 1 (the Hadnot Point Industrial Area) since December 1994. The systems were designed to collect and treat contaminated groundwater from the uppermost portion of the surficial aquifer in the northern and southern portions of Site 78. The systems were also designed to mitigate the potential for off-site contaminant migration.

As depicted in Figure 13, the northern treatment system currently includes two active recovery wells (RW-10 and RW12) and five inactive recovery wells (RW-1, RW-2, RW-3, RW4, and RW-11). The southern treatment system includes seven active recovery wells (RW-5, RW-6, RW-7, RW-8, RW13, RW14, and RW15) and one inactive recovery well (RW-9). Shallow groundwater extracted from the surficial aquifer is treated at either the northern or southern treatment plants (Figure 13), then discharged to the sewage treatment plant. Five recovery wells were taken off-line during 1996 due to a low concentration of contaminants in the groundwater being extracted. Another inactive recovery well, RW-11, was taken off-line during 1996 due to a high concentration of solids. The higher concentrations of dissolved and suspended solids in groundwater extracted from RW-11 may have been a result of natural site conditions or poor recovery well construction. Four recovery wells were installed during 1998 as recommended in a previous monitoring report (RW-12, RW-13, RW-14, and RW-15). The newly installed recovery wells have now been connected to the treatment system. Two recovery wells, RW-10 and RW-11, were re-installed to improve extraction effectiveness

The northern and southern treatment systems were designed to handle a maximum influent of 80 gallons per minute (gpm). Because the actual pumping rates are much lower than 80 gpm, the treatment systems are currently operating well below their maximum capacity. Groundwater extraction rates during the most recent evaluation period varied between 2.88 and 9.83 gpm. Based on past experience at MCB, Camp Lejeune, a 100-foot radius of influence is expected for 6-inch diameter recovery wells pumping at 5 gpm (Baker, 1996). Areas of influence between 12 and 82 feet, depending upon the particular extraction rate of each recovery well and the availability of groundwater, were achieved at Site 78 during the evaluation period.

The northern and southern treatment plants contain oil and water separators; metals removal systems including flocculation tanks, settling tanks, and sand filters; low profile air strippers; and liquid-phase carbon adsorption units. Tables 8 and 9 present monthly sampling results obtained during January through June of 1999 for the southern and northern treatment plants, respectively. The following assessments of both treatment systems are based upon these monthly sampling results and monthly remedial system progress reports are presented in Attachment D.

#### Southern Treatment System

#### **Treatment System Sampling Results**

Over 1.4 million gallons of contaminated groundwater were extracted from the southern portion of Site 78 during January through June of 1999. The southern treatment plant extracted groundwater during 3,687 hours of operation, which accounted for nearly 85 percent of the 4,344 hours possible. Routine maintenance and downtime to repair air leaks between recovery wells 6 and 7 and between recovery well 5 and the plant, to repair chemical pumps, accounted for 657 hours of total downtime during the sixth month period. Seven of the eight shallow recovery wells that serve the southern treatment system were operational during the evaluation period. The average rate at which groundwater was extracted and treated at the southern treatment plant, while operational, was just less than 7.7 gpm. An extraction rate of between four and eight gpm for each recovery well is typical of similarly constructed shallow recovery wells.

Five southern recovery wells are situated in a line as a downgradient contaminant barrier (Figure 13). The recovery wells are positioned to limit contaminant migration and intercept the contaminated plume as it presumably travels in the direction of groundwater flow. The recovery wells are located at the downgradient edge of the contaminant plume and, therefore, have been extracting groundwater with lower VOC concentrations than would be expected to be found closer to the center of the plume. Recovery wells RW-5 and RW-6 have typically removed groundwater with higher VOC concentrations than recovery wells RW-7 and RW-8. Recovery wells RW-5 and RW-6 are positioned closer to the most highly contaminated portion of the suspected contaminant plume. Recovery wells RW-13, RW-14, and RW-15 were installed during 1998, and as of January 1999 have been connected to the southern treatment system and are operational. The three new recovery wells are situated within the southern contaminant plume. RW-13 is just southeast of Building 1707, RW-14 is located just southeast of Building 1607, and RW-15 is located just east of the eastern corner of Building 1601.

Table 8 presents the monthly sampling results obtained during January through June of 1999 at the southern treatment system. Influent to the southern treatment plant contained the VOCs benzene, chloromethane, 1,1-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, tetrachloroethene, trichloroethylene, and vinyl chloride. Influent also contained the following metals: antimony; arsenic; beryllium; calcium; chromium; iron; lead; manganese; mercury; nickel; and calcium. As indicated by a comparison of influent to effluent, the treatment system is decreasing contaminant concentrations in the southern plume.

#### **Northern Treatment System**

During the period from January through June 1999, over 780,000 gallons of contaminated groundwater were extracted from the northern portion of Site 78. The northern treatment plant

treated groundwater during 4,023 hours of operation, or 92 percent of the 4,344 hours possible. Routine maintenance and downtime for installation of extraction well RW-12 accounted for 321 hours of total downtime during the sixth month period. The northern treatment system currently includes two active recovery wells (RW-10 and RW12). The average rate at which groundwater was extracted and treated at the northern treatment plant, while operational, was 3.38 gpm. An extraction rate of between four and eight gpm is more typical of similarly constructed shallow recovery wells (i.e., those less than 35 feet below ground surface). The average rate at which groundwater was extracted via RW-10, 2.25 gpm, is therefore less than what would be expected.

Recovery well RW-10 is situated within the contaminant plume in the northern portion of Site 78, approximately 140 feet upgradient of monitoring well 78-GW23, where VOCs have been detected at concentrations well above water quality standards. The remaining four shallow recovery wells are situated beyond the leading, downgradient edge of the contaminant plume (Figure 13). The four downgradient recovery wells were positioned to limit contaminant migration and intercept the VOC plume as it presumably would travel in the direction of groundwater flow. RW-12 was installed in 1998 near 78-GW23, which historically has the highest contaminant concentrations in the northern plume.

Monthly monitoring activities during the evaluation period included sampling of plant influent, plant effluent, oil and water separator effluent, sand filter effluent, and air stripper effluent. Table 9 presents the monthly sampling results obtained during January through June of 1999 at the northern treatment system. Influent to the northern treatment plant contained the VOCs benzene, chloromethane, 1,1-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene tetrachloroethene, trichloroethylene, and vinyl chloride. Influent also contained the following metals: antimony; arsenic; beryllium; calcium; chromium; iron; lead; manganese; mercury; and nickel. As indicated by a comparison of influent to effluent, the treatment system is decreasing contaminant concentrations in the northern plume.

#### RECOMMENDATIONS

The Record of Decision (ROD) for OU 1 stipulates that groundwater samples from Site 78 be collected periodically to monitor the possible off-site migration of known contaminants (Baker, 1994a). The sections that follow describe only the recommendations which have recently been implemented and recommendations which are proposed for future consideration.

#### **Implemented Recommendations**

Detailed information regarding the recommendations that were implemented prior to July 1998 are provided within previous monitoring reports. It is the intent of this report to provide a thorough listing of only those recommendations and actions implemented subsequent to July 1998.

#### **Sample Analysis Modification**

Although not previously proposed, laboratory analysis for VOCs will include the speciation of 1,2dichloroethene into cis- and trans- isomers as of the present calendar quarter (1999A). Prior to this time, 1,2-dichloroethene (total) was provided on laboratory analytical sheets. Cis- and trans-1,2dichloroethene are breakdown products of trichloroethene (TCE). Their concentrations are indicators of the progress of the natural attenuation process.

#### **Proposed Recommendations**

Based upon the observations and findings presented in this monitoring report, the following recommendations for the OU 1 monitoring program are proposed. If non-significant changes are made to a component of the selected remedy described in the ROD, the changes must be recorded in a post-decision document file. If significant changes are been made to a component of the selected remedy, the changes will need to be presented in an Explanation of Significant Differences document.

#### **Monitoring Point Reduction**

There have been no detections of any VOCs in groundwater from monitoring wells 78-GW14, 78-GW17-1, or 78-GW25 for the past four sampling events (two years). Wells 78-GW14 and 78-GW17-1 are located between the northern and southern contaminant plumes at Site 78, far from the edge of either plume. Well 78-GW25 is located outside the northeast boundary of the site, slightly past the perimeter and upgradient of the northern contaminant plume. Groundwater flow patterns suggest that migration of contaminants into the area surrounding this monitoring well is unlikely. It is recommended that sample collection from all three of these monitoring wells be discontinued.

#### Well Security and Aesthetics

During each sampling event monitoring wells are inspected for accessibility, integrity, aesthetics, and security. Maintenance may include, clearing of vegetation, replacing broken watertight caps, painting of bollards, and replacing padlocks. Improvements are made to the monitoring wells on an "as needed" basis.

## REFERENCES

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

Monitoring		Top of Casing	Ground Surface	Boring	Well	Screen Interval	Depth to	Depth to	
Well	Date	Elevation	Elevation	Depth	Depth	Depth	Sand Pack	Bentonite	Stick-Up
Number	Installed	(feet, msl)	(feet, msl)	(feet, bgs)	(feet, bgs)	(feet, bgs)	(feet, bgs)	(feet, bgs)	(feet, ags)
78-GW01	1986	NA	NA	27	25	5 - 25	3.0	2.0	1.8
78-GW04-1	1986	31.63	28.9	27	24.5	4 - 24	3.0	2.0	2.6
78-GW08	1986	28.72	26.3	27	25	5 - 25	3.0	2.0	3.1
78-GW09-1	1987	NA	NA	27	25	5 - 25	3.0	2.0	0
78-GW09-2	1987	27.6	25.4	76	75	55 - 75	52.0	49.0	0
78-GW09-3	1986	26.97	24.7	152	150	130 - 150	105.0	10.0	0
78-GW10	1986	28.13	25.7	27	25	5 - 25	3.0	2.0	2.2
78-GW11	1986	28.22	25.5	25.5	25	5 - 25	3.0	2.0	2.4
78-GW14	1986	27.32	25	25.5	25	5 - 25	3.0	2.0	1.9
78-GW15	1986	27.03	26.8	25.5	25	5 - 25	3.0	2.0	0.0
78-GW17-1	1986	30	27.5	25.5	25	5 - 25	3.0	2.0	2.1
78-GW21	1986	33.51	31.2	25	25	5 - 25	3.0	2.0	NA
78-GW22A	1986	32.36	30.4	25	25	5 - 25	3.0	2.0	NA
78-GW23	1986	32.08	30	25.5	25	5 - 25	3.0	2.0	1.8
78-GW24-1	1986	32.84	30.5	25.5	25	5 - 25	3.0	2.0	1.5
78-GW24-2	1987	33.73	30.4	80	76.6	56.6-76.6	52.0	49.0	2.8
78-GW24-3	1987	32.32	30.5	155	148	128 - 148	90.0	84.0	2.2
78-GW25	1986	32.58	30.1	25.5	25	5 - 25	5.0	3.0	2.1
78-GW39	1993	19.44	16.8	20	20	10 - 20	8.0	6.0	19.4
78-GW40	1998	NA	NA	24.6	24.6	4 - 24	3.0	1.5	2.0
78-GW41	1998	NA	NA	24.5	24	5 - 24	3.0	1.5	0.0
78-GW42	1998	NA	NA	24	23	4 - 23	3.0	1.5	0.0

Notes:

ags = Above ground surface

bgs = Below ground surface

msl = Mean Sea Level

NA = Information not available

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

				Field	d Parameters		
Well Number	Measuring	Well	Dissolved	Specific			
(Date of	Time	Volumes	Oxygen	Conductance	Temperature	pН	Turbidity
Measurement)			(mg/L)	(umhos/cm)	(°C)	(S.U.)	(N.T.U.)
78-GW01	0730	10.5	1.89	400	17.2	6.26	71
(01/19/99)	0735	1.1	2.05	393	16.2	6.31	83
	0745	1.5	4.4	369	16.7	6.44	24
	0820	2	4.89	358	16.9	6.5	7.0
		Only	two volumes ta	ken because wel	started to pump	o dry.	
78-GW04-1	0915	1	1.17	648	23.5	5.93	367
(01/17/99)	0925	2	1.17	916	23.6	6.27	220
	0945	3	1.32	281	24.1	6.45	130
	1000	4	1.12	300	23.8	6.59	23
	1015	5	1.06	321	24	6.72	11
78-GW08	1300	1	1.97	617	21.6	5.84	65
(01/17/99)	1306	1.5	1.89	595	21.4	5.74	41
	1311	2	2.21	590	21.1	5.7	28
	1322	2.5	2.09	597	21.1	5.72	19
	1340	3	2.03	590	21.1	5.69	8.0
78-GW09-1	1440	1	1.99	666	20.6	6.26	0
(01/17/99)	1503	2	2.24	670	20.6	6.2	0
	1526	3	1.46	641	20.6	6.12	0
78-GW09-2	1455	1	1.26	428	19.8	7.37	0
(01/17/99)	1507	1.5	0.54	427	20.1	7.41	0
	1520	2	0.64	434	20.2	7.43	0
	1537	2.5	0.76	430	20.2	7.36	0
	1549	3	0.95	434	20.2	7.45	0
78-GW09-3	1004	1	3.52	786	19	11.53	0
(01/17/99)	1115	1.5	3.76	866	21.1	11.68	0
	1210	2	2.81	448	20.9	11.01	0
	1245	2.5	1.44	455	21.3	11.03	0
	1353	3	1.2	460	20.8	11	0
78-GW10	1000	1	1.99	996	20	6.24	36
(01/17/99)	1005	105	2.06	991	20.4	6.28	27
	1010	2	2.09	986	20.3	6.26	16
	1015	2.5	2.03	977	20.3	6.25	11
	1020	3	2.14	973	20.3	6.25	9.0
78-GW11	0905	1	4.12	272	18.7	4.7	17
(01/17/99)	0910	1.5	4.43	266	19.1	4.62	21
	0915	2	4.19	272	19.1	4.63	12
	0920	2.5	4.36	269	19.2	4.63	10
	0925	3	4.41	267	19.2	4.64	6.0

# TABLE 2 (Continued)

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

			<u> </u>		l Parameters		<u> </u>
Well Number	Measuring	Well	Dissolved	Specific	<b>.</b> .		
(Date of	Time	Volumes	Oxygen	Conductance	Temperature	pН	Turbidit
Measurement)			(mg/L)	(umhos/cm)	(°C)	(S.U.)	(N.T.U.)
78-GW14	1508	1	1.05	665	20.6	3.92	12
(01/16/99)	1516	1.5	1.38	633	21	3.91	0
	1524	2	2.03	618	21.2	3.87	0
	1536	2.5	1.8	612	21.2	3.89	0
	1544	3	1.09	604	21.1	3.89	0
78-GW15	1105	1	4.7	902	21.5	6.25	36
(01/17/99)	1110	1.5	4.62	919	21.9	6.19	24
	1115	2	5.42	944	21.8	6.18	13
	1120	2.5	5.13	949	21.9	6.16	10
	1125	3	5.03	958	21.9	6.16	8.0
78-GW17-1	1140	1	4.98	710	20.1	6.97	6.0
(01/17/99)	1147	1.5	4.69	680	19.8	6.9	37
	1153	2	4.63	673	19.7	6.86	19
	1200	2.5	4.18	663	19.5	6.81	6.0
	1207	3	4.23	658	19.4	6.86	2.0
	1213	3.5	4.11	650	19.5	6.81	1.0
78-GW21	1312	1	2.3	674	20.7	5.41	18
(01/17/99)	1319	1.5	2.26	667	20.5	5.39	12
. ,	1326	2	2.17	673	20.6	5.39	11
	1333	2.5	2.18	674	20.5	5.41	6.8
	1340	3	2.1	671	20.5	5.43	4.3
78-GW22A	1605	1	1.37	844	17.5	6.83	17
(01/17/99)	1612	1.5	1.23	837	17	6.78	14
	1619	2	1.18	835	16.8	6.79	9.0
	1626	2.5	1.35	833	16.7	6.77	4.0
	1633	3	1.32	837	16.6	6.82	3.8
78-GW23	1618	1	1.21	685	18.3	4.63	4.0
(01/17/99)	1625	1.5	1.86	653	18.9	4.61	9.0
· · · ·	1631	2	0.58	653	18.8	4.61	10
	1637	2.5	1.04	648	18.8	4.58	16
	1645	3	1.06	641	18.7	4.6	29
78-GW24-1	0844	1	1.4	594	14.3	6.04	0
(01/16/99)	0906	2	1.09	538	14.8	6.02	0
()	0929	3	1.19	527	15.1	6.03	0
78-GW24-2	1110	1	0.7	373	18.5	7.45	0
(01/16/99)	1154	1.5	1.38	375	18.2	7.68	0
(	1215	2	0.98	369	18.5	7.7	117
	1231	2.5	1.16	379	18.5	7.67	0
	1250	3	1.34	378	18.4	7.68	0

## TABLE 2 (Continued)

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

		:	<u></u>	Field	d Parameters		·
Well Number	Measuring	Well	Dissolved	Specific			
(Date of	Time	Volumes	Oxygen	Conductance	Temperature	pН	Turbidity
Measurement)			(mg/L)	(umhos/cm)	(°C)	(S.U.)	(N.T.U.)
78-GW24-3	0921	1	1.43	762	17.8	7.6	0
(01/16/99)	0959	1.5	1.42	754	17.8	7.62	0
	1037	2	1.77	736	18.5	7.65	0
	1114	2.5	1.62	746	18.6	7.73	0
	1150	3	1.52	782	18.6	7.55	0
78-GW25	1624	1	1.76	685	17.9	6.07	0
(01/16/99)	1633	1.5	1.32	653	17.9	6.06	0
	1638	2	1.17	655	18	6.04	0
	1645	2.5	1.03	618	17.9	6.02	0
	1650	3	1.23	626	18	6	0
78-GW39	0805	1	2.75	755	18.2	4.75	2.0
(01/17/99)	0813	1.5	3.45	723	18.6	4.5	1.0
	0820	2	2.72	717	18.4	4.42	0
	0830	2.5	3.01	717	18.4	4.41	0
	0837	3	3.08	718	18.3	4.39	0
78-GW40	1510	1	1.97	333	17.8	4.97	90
(01/17/99)	1520	1.5	2.12	317	17.5	4.95	65
	1530	2	1.25	324	17.7	4.88	29
	1542	2.5	1.67	330	17.5	4.87	9.0
	1554	3	1.54	325	17.4	4.87	5.0
78-GW41	1510	1	1.24	712	29.2	6.65	15
(01/17/99)	1518	1.5	1.26	677	29.8	· 6.73	18
	1526	2	1.23	646	29.8	6.7	12
	1534	2.5	1.34	637	29.7	6.66	8.0
	1542	3	1.36	641	29.7	6.63	7.0
78-GW42	0755	1	1.71	915	19.6	6.33	0
(01/17/99)	0800	2	2.94	925	19.6	6.31	0
	0805	3	1.85	1,030	19.7	6.44	0
	0810	4	1.81	1,150	19.6	6.42	0

Notes:

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

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

Sample Location	Media	TCL Volatiles <sup>(1)</sup>	Sample Identification
78-GW01	Groundwater	Х	IR78-GW01-99A
78-GW04-1	Groundwater	Х	IR78-GW04-99A
78-GW08	Groundwater	Х	IR78-GW08-99A
78-GW09-1	Groundwater	Х	IR78-GW09-99A
78-GW09-2	Groundwater	X	IR78-GW09IW-99A
78-GW09-3	Groundwater	Х	IR78-GW09DW-99A
78-GW10	Groundwater	X	IR78-GW10-99A
78-GW11	Groundwater	Х	IR78-GW11-99A
78-GW14	Groundwater	X	IR78-GW14-99A
78-GW15	Groundwater	X	IR78-GW15-99A
78-GW17-1	Groundwater	X	IR78-GW17-99A
78-GW21	Groundwater	Х	IR78-GW21-99A
78-GW22A	Groundwater	Х	IR78-GW22A-99A
78-GW23	Groundwater	Х	IR78-GW23-99A
78-GW24-1	Groundwater	Х	IR78-GW24-99A
78-GW24-2	Groundwater	Х	IR78-GW24IW-99A
78-GW24-3	Groundwater	Х	IR78-GW24DW-99A
78-GW25	Groundwater	Х	IR78-GW25-99A
78-GW39	Groundwater	Х	IR78-GW39-99A
78-GW40	Groundwater	Х	IR78-GW40-99A
78-GW41	Groundwater	Х	IR78-GW41-99A
78-GW42	Groundwater	Х	IR78-GW42-99A

Notes:

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<sup>(1)</sup> Target Compound List (TCL) Volatile Organic Compounds by U.S. Environmental Protection Agency (EPA) Method 8260.

X = Requested Analyses

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

Well	Reference	SWE	SWE	SWE	SWE	SWE	SWE	SWE	SWL	SWE
ID	Elevation <sup>(1)</sup>	8/9/96	11/7/96	2/25/97	5/1/97	8/9/97	1/23/98	7/24/98	1/18/99	1/18/99
78-GW02	32.15	NA	NA	NA	24.24	18.27	24.87	24.81	7.60	24.55
78-GW03	31.85	NA	NA	NA	26.03	24.15	26.23	24.26	5.95	25.90
78-GW04-1	31.63	12.32	13.12	12.84	11.88	10.72	12.60	11.62	18.65	12.98
78-GW05	28.63	19.72	19.62	19.87	19.30	17.49	20.18	19.15	9.38	19.25
78-GW06	27.94	NA	NA	14.53	13.73	12.36	13.84	13.71	13.07	14.87
78-GW07	27.83	NA	NA	NA	14.74	13.33	14.89	NA	13.83	14.00
78-GW08	28.72	16.42	17.11	16.64	16.14	15.11	16.06	16.26	13.45	15.27
78-GW09-2	24.76 <sup>(2)</sup>	14.05	14.64	14.00	13.72	12.41	13.51	13.55	11.66	13.10
78-GW09-3	26.97	14.21	14.80	14.17	13.87	15.26	16.51	16.38	11.05	15.92
78-GW10	28.13	17.34	17.44	17.09	16.78	15.21	NA	16.47	12.51	15.62
78-GW11	27.93 <sup>(2)</sup>	16.57	16.52	15.94	15.77	14.02	14.98	15.28	13.53	14.40
78-GW12	30.08	NA	NA	19.82	18.67	18.00	18.87	NA	NA	NA
78-GW14	24.67 <sup>(2)</sup>	17.61	17.91	17.61	17.10	16.86	17.17	16.83	8.39	16.28
78-GW15	26.55 <sup>(2)</sup>	18.33	19.53	19.04	18.85	17.95	18.15	19.09	6.52	20.03
78-GW16	32.40	NA	NA	21.65	21.22	19.68	20.33	20.52	NA	NA
78-GW17-1	30.00	19.06	20.35	20.06	19.82	18.87	16.49	19.83	11.06	18.94
78-GW19	29.07	22.43	21.37	21.94	21.74	19.01	22.23	20.10	NA	NA
78-GW21	33.51	23.66	24.11	23.87	23.70	22.77	23.55	23.33	10.40	23.11
78-GW22A	32.36	26.65	25.74	26.66	26.71	23.78	NA	25.00	6.82	25.54
78-GW23	32.08	23.45	23.62	23.81	23.01	21.04	25.88	21.93	10.30	21.78
78-GW24-1	32.84	26.99	26.02	26.82	26.27	24.43	27.02	24.86	6.51	26.33
78-GW24-2	32.50 <sup>(2)</sup>	22.40	22.27	22.21	21.75	19.06	21.34	20.21	12.58	19.92
78-GW24-3	32.32	21.98	22.19	21.78	21.30	18.64	20.92	19.65	12.86	19.46
78-GW25	32.58	26.27	25.51	25.96	25.53	22.68	25.61	23.76	8.55	24.03
78-GW31-3	25.99	16.78	17.22	16.83	16.41	14.96	16.02	NA	10.52	15.47
78-GW33	29.84	NA	NA	NA	23.48	21.81	23.06	23.42	7.63	22.21
78-GW39	19.44	4.63	NA	4.61	4.44	3.51	4.44	4.02	15.40	4.04

Notes:

<sup>(1)</sup> Elevation from top of PVC well casing (feet above mean sea level [MSL])

<sup>(2)</sup> New elevation from top of PVC well casing after monitoring well maintenance or conversion (feet above MSL)

SWE = Static water elevation (in feet above MSL)

SWL = Static water level (in feet below casing)

NA = Data not available

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# TRIP BLANK ANALYTICAL RESULTS OPERABLE UNIT NO. 2 - SITE 78 MONITORING AND O&M SUPPORT, CTO-0367 MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR78-TB01-99A	IR78-TB02-99A	IR78-TB03-99A
DATE SAMPLED	1/16/99	1/18/99	1/19/99
VOLATILES (ug/L)			
1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	5 U	5 U	5 U
	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U
1,2-Dichloropropane 2-Butanone	5 U	5 U	5 U
	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U
4-Methyl-2-pentanone	10 U	10 U	10 U
Acetone	10 U	10 U ,	10 U
Benzene	5 U	5 U	5 U
Bromodichloromethane	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U
Bromomethane	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U
Carbon tetrachloride	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U
Chloroethane	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U
Chloromethane	5 U	5 U	5 U
cis-1,2-Dichloroethene	5 U	5 U	5 <u>U</u>
cis-1,3-Dichloropropene	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U
Methylene chloride	5 U	5 U	5 U
Styrene	5 U	5 U	5 U
Tetrachloroethene	5 U	5 U	5 U
Toluene	5 U	5 U	5 U
trans-1,2-Dichloroethene	5 U	5 U	5 U
trans-1,3-Dichloropropene	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U
Vinyl chloride	5 U	5 U	5 U
Xylenes	5 U	5 U	5 U

U = not detected ug/L = micrograms per liter

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

Fraction	Detected	Compariso	Comparison Criteria		ntration nge	Location of	Detection	Detections Above	
	Contaminants	NCWQS	MCL	Min.	Max.	Maximum Detection	Frequency	NCWQS	MCL
Volatile	1,1,1-Trichloroethane	200	200	230	230	IR78-GW09-99A	1/22	1	1
Organics	1,1-Dichloroethane	700	NE	9	50	IR78-GW09-99A	2/22	0	NA
	1,1-Dichloroethene	7	7	52	52	IR78-GW09-99A	1/22	1 ·	1
	Acetone	700	NE	11	11	IR78-GW23-99A	1/22	0	NA
	Benzene	1	5	18	18	IR78-GW23-99A	1/22	1	1
	Chloroform	0.19	100	4 J	4 J	IR78-GW41-99A	1/22	1	0
	Chloromethane	NE	NE	5	5	IR78-GW42-99A	1/22	NA	NA
	cis-1,2-Dichloroethene	70	70	3 J	7000	IR78-GW23-99A	7/22	2	2
	Ethylbenzene	29	700	8	8	IR78-GW23-99A	1/22	0	0
	Methylene Chloride	5	5	30	30	IR78-GW24-99A	1/22	1	1
	Tetrachloroethene	0.7	5	0.9 J	9	IR78-GW24DW-99A	2/22	2	1
	Toluene	1,000	1,000	4 J	4 J	IR78-GW23-99A, IR78-GW24-99A	2/22	0	0
	trans-1,2-Dichloroethene	70	100	18	140	IR78-GW23-99A	2/22	1	1
	Trichloroethene	2.8	5	6	130	IR78-GW09-99A	6/22	6	6
F	Vinyl Chloride	0.015	2	6	360 J	IR78-GW23-99A	3/22	3	3
	Xylenes (Total)	530	10,000	57	57	IR78-GW23-99A	1/22	0	0

#### Notes:

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Concentrations presented in micrograms per liter ( $\mu$ g/L) or parts per billion.

J	=	Compound Detected at an Estimated Concentration
MCL	=	Federal Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to 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

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

SAMPLE ID DATE SAMPLED	IR78-GW01-99A 1/19/99	IR78-GW04-99A 1/17/99	IR78-GW08-99A 1/17/99	IR78-GW09-99A 1/17/99	IR78-GW09DW-99A 1/17/99	IR78-GW09IW-99A 1/17/99	IR78-GW10-99A 1/17/99	IR78-GW11-99A 1/17/99
VOLATILES (ug/L)								
1,1,1-Trichloroethane	5 U	5 U	5 U	230	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	50	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	52	5 U	5 U	5 U	5 U
Acetone	10 U	10 U	10 U	10 U				
Benzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	4 J	3 J	5 U	38	5 U	10	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	7	6	5 U	130	5 U	5 U	5 U	5 U
Vinyl chloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylenes	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

#### TABLE 7 (Continued)

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

SAMPLE ID DATE SAMPLED	IR78-GW14-99A 1/16/99	IR78-GW15-99A 1/17/99	IR78-GW17-99A 1/17/99	IR78-GW21-99A 1/17/99	IR78-GW22A-99A 1/17/99	IR78-GW23-99A 1/17/99	IR78-GW24-99A 1/16/99	IR78-GW24DW-99A 1/16/99
VOLATILES (ug/L)								
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acetone	10 U	11	10 U	10 U				
Benzene	5 U	5 U	5 U	5 U	5 U	18	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U	7000	360	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	8	5 U	5 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U	5 U	30	5 U
Tetrachloroethene	5 U	5 U	5 U	0.9 J	5 U	5 U	5 U	9
Toluene	5 U	5 U	5 U	5 U	5 U	4 J	4 J	5 U
trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U	140	18	5 U
Trichloroethene	5 U	5 U	5 U	5 U	5 U	17	14	5 U
Vinyl chloride	5 U	5 U	5 U	5 U	5 U	360 J	25	5 U
Xylenes	5 U	5 U	5 U	5 U	5 U	57	5 U	5 U

## TABLE 7 (Continued)

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

IR78-GW24IW-99A	IR78-GW25-99A	IR78-GW39-99A	IR78-GW40-99A	IR78-GW41-99A	IR78-GW42-99A
1/16/99	1/16/99	1/17/99	1/17/99	1/17/99	1/17/99
5 U	5 U	5 U	5 U	5 U	5 U
5 U	5 U	5 U	5 U	5 U	9
5 U	5 U	5 U	5 U	5 U	5 U
10 U	10 U	10 U	10 U	10 U	10 U
5 U	5 U	5 U	5 U	5 U	5 U
5 U	5 U	5 U	5 U	4 J	5 U
5 U	5 U	5 U	5 U	5 U	5
5 U	5 U	5 U	5 U	5 U	27
5 U	5 U	5 U	5 U	5 U	5 U
5 U	5 U	5 U	5 U	5 U	5 U
5 U	5 U	5 U	5 U	5 U	5 U
5 U	5 U	5 U	5 U	5 U	5 U
5 U	5 U	5 U	5 U	5 U	5 U
5 U	5 U	5 U	5 U	5 U	17
5 U	5 U	5 U	5 U	5 U	6
5 U	5 U	5 U	5 U	5 U	5 U
	1/16/99 S U S U S U S U S U S U S U S U	1/16/99       1/16/99         5 U       5 U         5 U       5 U         5 U       5 U         5 U       5 U         10 U       10 U         5 U       5 U	1/16/99       1/16/99       1/17/99         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         10 U       10 U       10 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U       5 U         5 U       5 U </td <td>1/16/99         1/16/99         1/17/99         1/17/99           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           10 U         10 U         10 U         10 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U&lt;</td> <td>1/16/99         1/16/99         1/17/99         1/17/99         1/17/99         1/17/99           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           10 U         10 U         10 U         10 U         10 U         10 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U</td>	1/16/99         1/16/99         1/17/99         1/17/99           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           10 U         10 U         10 U         10 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U           5 U         5 U         5 U<	1/16/99         1/16/99         1/17/99         1/17/99         1/17/99         1/17/99           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           10 U         10 U         10 U         10 U         10 U         10 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U         5 U         5 U         5 U         5 U           5 U         5 U         5 U

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

,	January 1999						Febr	uary 1999	)		March 1999				
		Oil/Water		Sand			Oil/Water	Air	Sand			Oil/Water	Air	Sand	
Contaminant	Plant Influent	Separator Effluent	Stripper Effluent	Filter Effluent	Final Effluent	Plant Influent	Separator Effluent	Stripper Effluent	Filter Effluent	Final Effluent	Plant Influent	Separator Effluent	Stripper Effluent	Filter Effluent	Final Effluent
Volatiles <sup>(1)</sup>										2				Lindent	
Benzene	1.8	NA	<1	NA	<1	1.2	NA	<1	NA	<1	<1	NA	<1	NA	<1
cis-1,2-Dichloroethene	122	NA	<1	NA	<1	170	NA	<1	NA	<1	139	NA	<1	NA	<1
trans-1,2-Dichloroethene	<1	NA	<1	NA	<1	1.2	NA	<1	NA	<1	<1	NA	<1	NA	<1
Trichloroethylene	40.5	NA	<1	NA	<1	23.7	NA	<1	NA	<1	25.4	NA	<1	NA	<1
Vinyl Chloride	18	NA	<1	NA	<1	17.6	NA	<1	NA	<1	2.4	NA	<1	NA	<1
Total Metals <sup>(1)</sup>															
Antimony	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5
Arsenic	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5
Beryllium	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5
Chromium	10.6	NA	NA	<10	<10	<10	NA	NA	<10	<10	<10	NA	NA	<10	<10
Iron	200	NA	NA	3,830	206	558	NA	NA	1,780	123	386	NA	NA	201	171
Lead	<3	NA	NA	3.8	3.9	<5	NA	NA	<5	6.1	<3	NA	NA	<3	15.4
Manganese	43.7	NA	NA	<15	<15	163	NA	NA	<15	<15	155	NA	NA	<15	<15
Mercury	<1	NA	NA	<.2	<1	<1	NA	NA	<1	<1	<1	NA	NA	<1	<1
Nickel	<40	NA	ŇA	<40	<40	<40	NA	NA	<40	<40	<40	NA	NA	<40	<40
Calcium	128,000	NA	NA	129,000	135,000	158,000	NA	NA	150,000	148,000	163,000	NA	NA	154,000	150,000
Wet Chemistry															
Total Dissolved Solids (mg/L)	463	NA	NA	507	528	517	NA	NA	219	486	583	NA	NA	560	542
Total Suspended Solids (mg/L)	<4.00	NA	NA	<4.0	<4.0	5	NA	NA	<4.0	<4.0	<4.0	NA	NA	4	<4.0
pH (su)	7.1	NA	NA	NA	8.2	7.1	NA	NA	NA	8.1	7.2	NA	NA	NA	8
Oil & Grease (mg/L)	<5.0	<5.0	NA	NA	<5.5	<5.0	<5.0	NA	NA	<5.0	8.5	<5.0	NA	NA	<5.0

Notes:

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<sup>(1)</sup> Concentrations reported in micrograms per liter (ug/L) or parts per billion. NA = Not analyzed.

#### TABLE 8 (Continued)

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

,	April 1999						Ma	ay 1999					une 1999	-	
		Oil/Water	Air	Sand			Oil/Water	Air	Sand			Oil/Water	Air	Sand	
* 	Plant	Separator	Stripper	Filter	Final	Plant	Separator	Stripper	Filter	Final	Plant	Separator	Stripper	Filter Effluent	Final Effluent
Contaminant	Influent	Effluent	Effluent	Effluent	Effluent	Influent	Effluent	Effluent	Effluent	Enluent	Influent	Effluent	Emuent	Emuent	Ennuent
Volatiles <sup>(1)</sup>															
Benzene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.9
Chloromethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29.4
1,1-Dichloroethane	NA	NA	NA	NA	NA	1.8	NA	NA	NA	NA	1.6	NA	NA	NA	3.7
cis-1,2-Dichloroethene	74.9	NA	NA	NA	NA	54.5	NA	NA	NA	3.9	64.1	NA	NA	NA	9.7
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	NA	NA	NA	NA	NA	NA	NA	6.6	NA	3.3	46.2	NA	26.5	NA	62.8
Trichloroethene	26.2	NA	NA	NA	NA	19.1	NA	1.1	NA	NA	125	NA	1	NA	7.7
Vinyl Chloride	7.4	NA	NA	NA	NA	6.2	NA	NA	NA	3.1	2.2	NA	NA	NA	6.2
Total Metals <sup>(1)</sup>							1								
Arsenic	NA	NA	NA	7.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	3,730	NA	NA	1,730	1,100	1,530	NA	NA	736	824	501	NA	NA	558	578
Lead	NA	NA	NA	NA	12.2	NA	NA	NA	NA	69.7	NA	NA	NA	NA	3.2
Manganese	221	NA	NA	500	104	212	NA	NA	117	26	97.2	NA	NA	68.1	168
Calcium	149,000	NA	NA	134,000	120,000	152,000	NA	NA	82,400	86,800	1,320	NA	NA	80,600	75,500
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.8
Wet Chemistry							1		1					ļ	
Total Dissolved Solids (mg/L)	478	NA	NA	512	476	444	NA	NA	299	372	416	NA	NA	280	267
Total Suspended Solids (mg/L)	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH (su)	5.3	NA	NA	NA	6.4	7.2	NA	NA	NA	7.5	7.1	NA	NA	NA	7.7
Oil & Grease, Gravimetric (mg/L)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.5	NA	NA	NA

Notes:

<sup>(1)</sup> Concentrations reported in micrograms per liter (ug/L) or parts per billion.

NA = Not analyzed.

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

,	January 1999						Febr	uary 1999	)		March 1999				
		Oil/Water	Air	Sand			Oil/Water	Air	Sand			Oil/Water	Air	Sand	
Contaminant	Plant Influent	Separator Effluent	Stripper	Filter Effluent	Final	Plant	Separator	Stripper	Filter Effluent	Final Effluent	Plant Influent	Separator	Stripper	Filter Effluent	Final Effluent
Volatiles <sup>(1)</sup>	mnuem	Emuent	Emuent	Emuent	Ellinent	Influent	Effluent	Elliuent	Emuent	Emuent	mnuem	Effluent	Ellinent	Ellinein	Elliuent
	05.0														
Benzene	25.3	NA	<1	NA	<1	25.3	NA	<2	NA	<1		NA	<1	NA	<1
cis-1,2-Dichloroethene	79.1	NA	<1	NA	<1	90.8	NA	<1	NA	<1		NA	<1	NA	<1
trans-1,2-Dichloroethene	2	NA	<1	NA	<1	1.9	NA	<1	NA	<1	<1	NA	<1	NA	<1
Trichloroethylene	9.5	NA	<1	NA	<1	9.3	NA	_<1	NA	<1	7.4	NA	<1	NA	<1
Vinyl Chloride	210	NA	<1	NA	<1	344	NA	<1	NA	<1	147	NA	<1	NA	<1
Total Metals <sup>(1)</sup>															
Antimony	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5
Arsenic	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5
Beryllium	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5	<5	NA	NA	<5	<5
Chromium	<10	NA	NA	<10	<10	<10	NA	NA	<10	<10	<10	NA	NA	<10	<10
Iron	18,000	NA	NA	1,720	158	9,540	NA	NA	718	511	10,900	NA	NA	1,780	148
Lead	15.6	NA	NA	10	22.7	7.2	NA	NA	4.5	58.8	8.6	NA	NA	8	118
Manganese	80.7	NA	NA	135	24	80.8	NA	NA	117	<15	63.1	NA	NA	63.3	111
Mercury	<1	NA	NA	<1	<1	<1	NA	NA	<1	<1	<1	NA	NA	<1	<1
Nickel	<40	NA	NA	<40	<40	<40	NA	NA	<40	<40	<40	NA	NA	<40	<40
Calcium	81,300	NA	NA	74,800	82	81,500	NA	NA	65,900	75,800	58,800	NA	NA	66,900	68,700
Wet Chemistry															
Total Dissolved Solids (mg/L)	267	NA	NA	256	271	240	NA	NA	227	219	19.6	NA	NA	227	251
Total Suspended Solids (mg/L)	97	NA	NA	6	<4.0	29	NA	NA	<4.0	<4.0	20	NA	NA	6	<4.0
pH (su)	6.7	NA	NA	NA	7.9	6.8	NA	NA	NA	7.8	6.4	NA	NA	NA	7.4
Oil & Grease (mg/L)	6.4	6.2	NA	NA	6.9	<5.0	<5.0	NA	NA	<5.0	<5.0	27.2	NA	NA	12.9

Notes:

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<sup>(1)</sup> Concentrations reported in micrograms per liter (ug/L) or parts per billion. NA = Not analyzed.

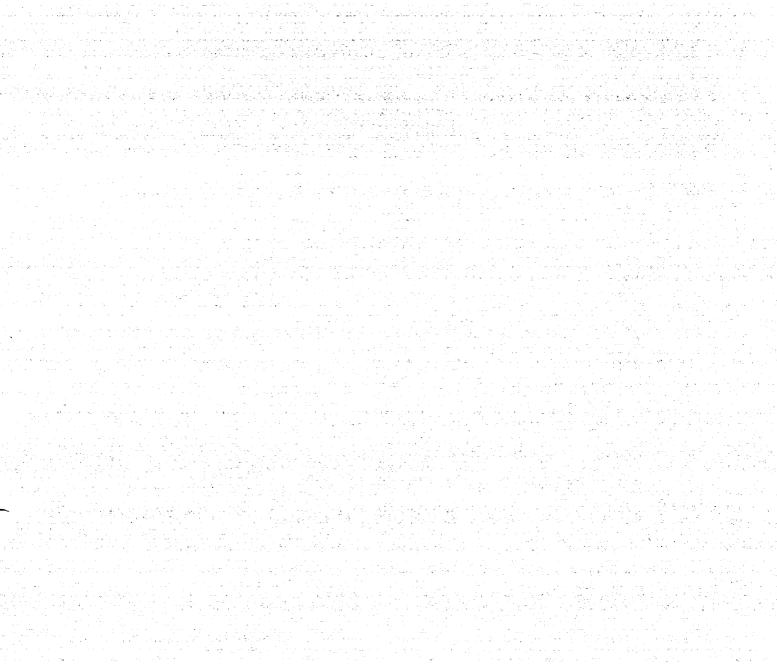
## TABLE 9 (Continued)

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

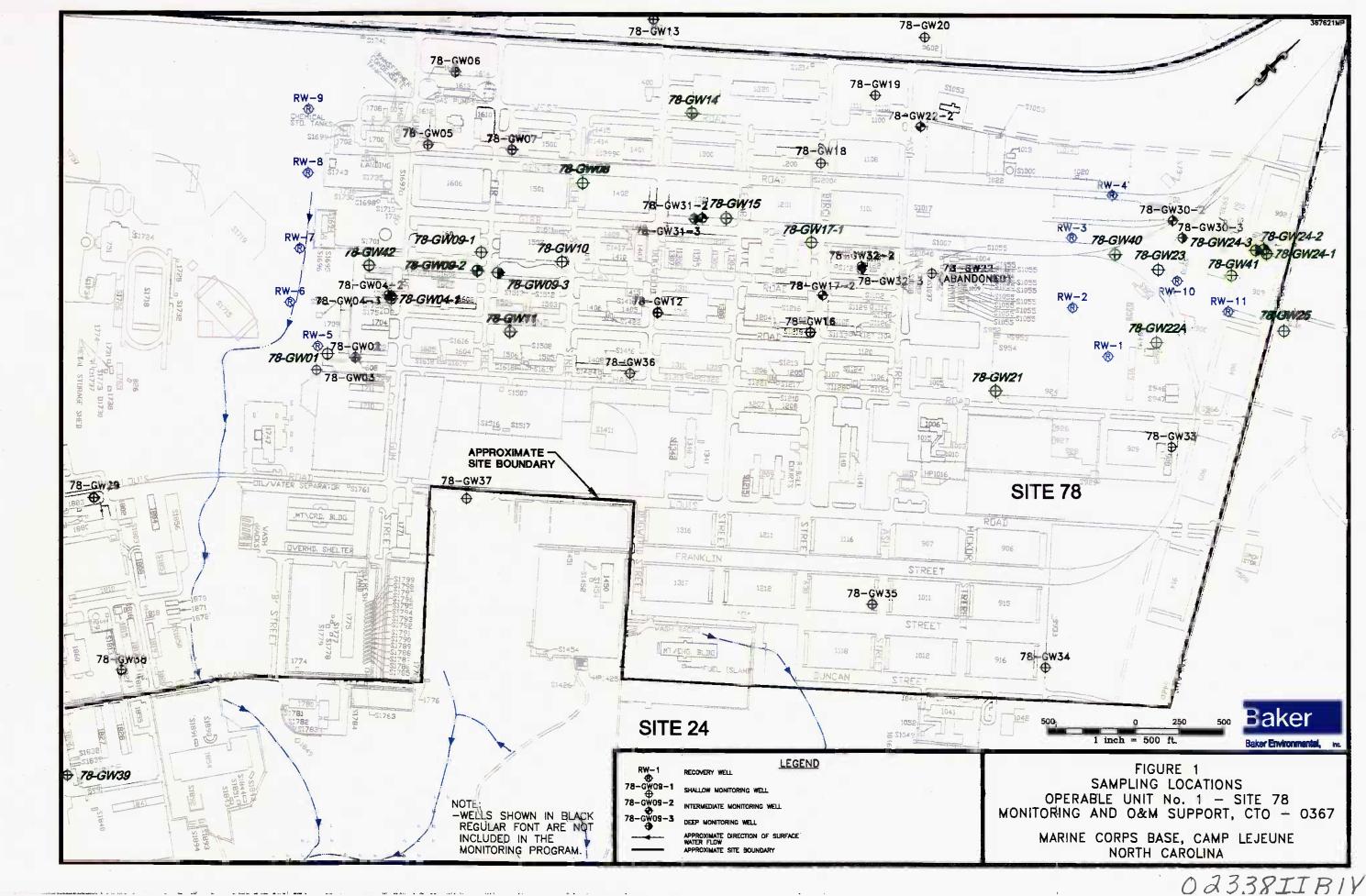
,		A	pril 1999				М	ay 1999				J	une 1999		
Contaminant	Plant Influent	Oil/Water Separator Effluent	Air Stripper	Sand Filter	Final	Plant	Oil/Water Separator	Air Stripper		Final	Plant	Oil/Water Separator	Stripper		Final
	mnuent	Eindent	Emuent	Effluent	Effluent	Influent	Effluent	Effluent	Effluent	Effluent	Influent	Effluent	Effluent	Effluent	Effluent
Volatiles <sup>(1)</sup>											5				
Benzene	15.8	NA	NA	NA	NA	17.7	NA	NA	NA	NA	21.8	NA	NA	NA	NA
cis-1,2-Dichloroethene	41.2	NA	NA	NA	NA	67.6	NA	NA	NA	NA	66.7	NA	NA	NA	NA
Ethylbenzene	3	NA	NA	NA	NA	4.2	NA	NA	NA	NA	7.8	NA	5.2	NA	1.5
trans-1,2-Dichloroethene	NA	NA	NA	NA	NA	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1.1	NA	NA	NA	NA	1.2	NA	NA	NA	NA	2.6	NA	NA	NA	NA
Trichloroethene	12.2	NA	NA	NA	NA	24.5	NA	NA	NA	NA	35.4	NA	NA	NA	NA
Vinyl Chloride	63.2	NA	NA	NA	NA	96	NA	NA	NA	NA	36.5	NA	NA	NA	NA
Xylenes (total)	11.7	NA	NA	NA	NA	12.3	NA	NA	NA	NA	21.3	NA	5.2	NA	NA
Total Metals <sup>(1)</sup>															
Arsenic	5.6	NA	NA	5.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	5,240	NA	NA	115	134	5,120	NA	NA	4,850	307	11,700	NA	NA	7,150	729
Lead	NA	NA	NA	156	5.5	NA	NA	NA	NA	115	3.3	NA	NA	8.3	NA
Manganese	49	NA	NA	NA	51.5	48.9	NA	NA	44.9	37	42	NA	NA	81.2	142
Calcium	52,500	NA	NA	52,500	50,400	54,300	NA	NA	48,500	51,600	47,600	NA	NA	45,800	39,800
Wet Chemistry															
Total Dissolved Solids (mg/L)	173	NA	NA	183	178	179	NA	NA	184	187	211	NA	NA	184	161
Total Suspended Solids (mg/L)	39	NA	NA	NA	NA	10	NA	NA	NA	NA	21	NA	NA	5	NA
pH (su)	4.4	NA	NA	NA	5.7	6.2	NA	NA	NA	7.4	6.4	NA	NA	NA	7.3
Oil & Grease, Gravimetric (mg/L)	NA	NA	NA	NA	NA	8.3	11.9	NA	NA	NA	5.7	17.5	NA	NA	NA

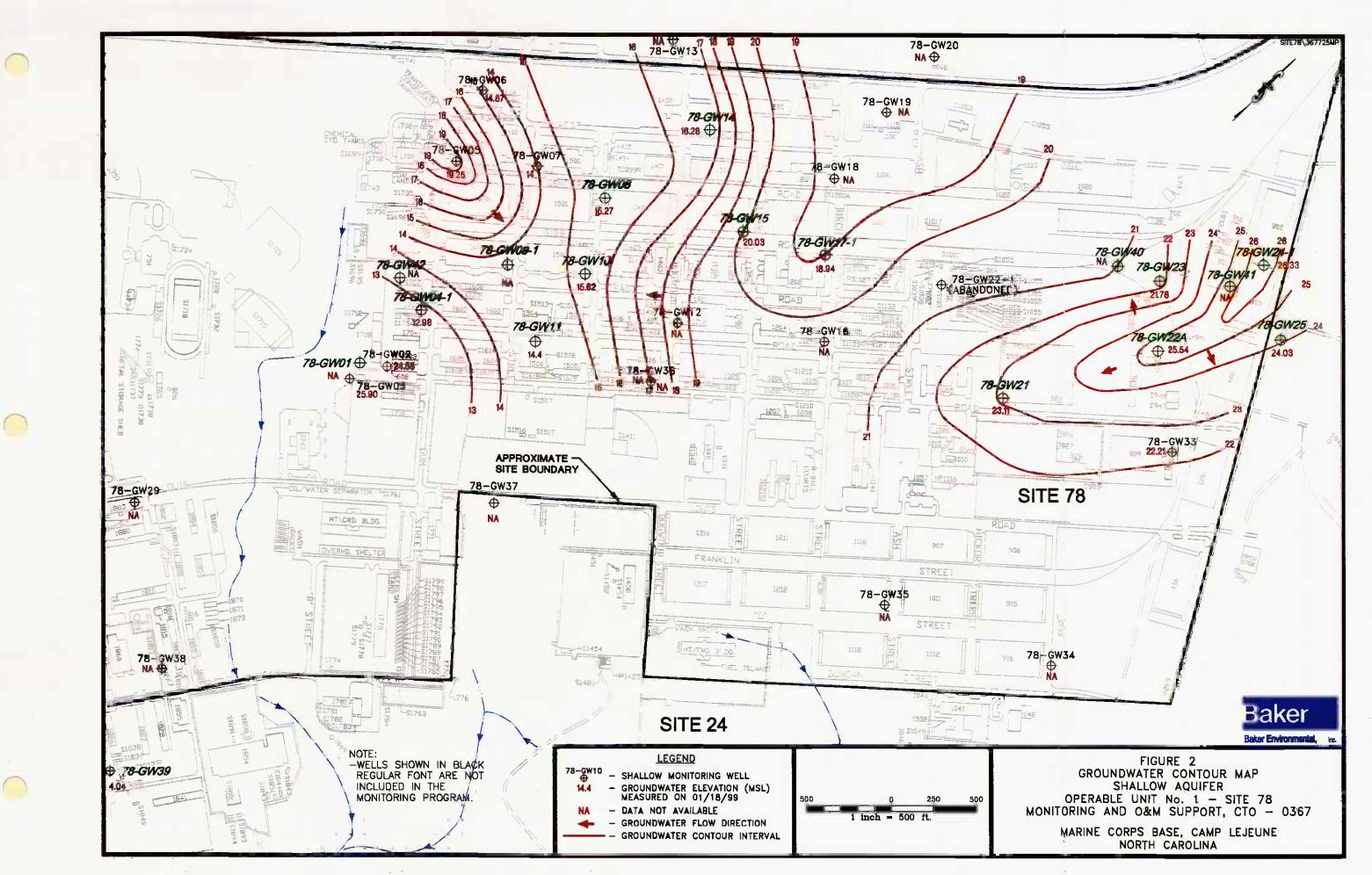
Notes:

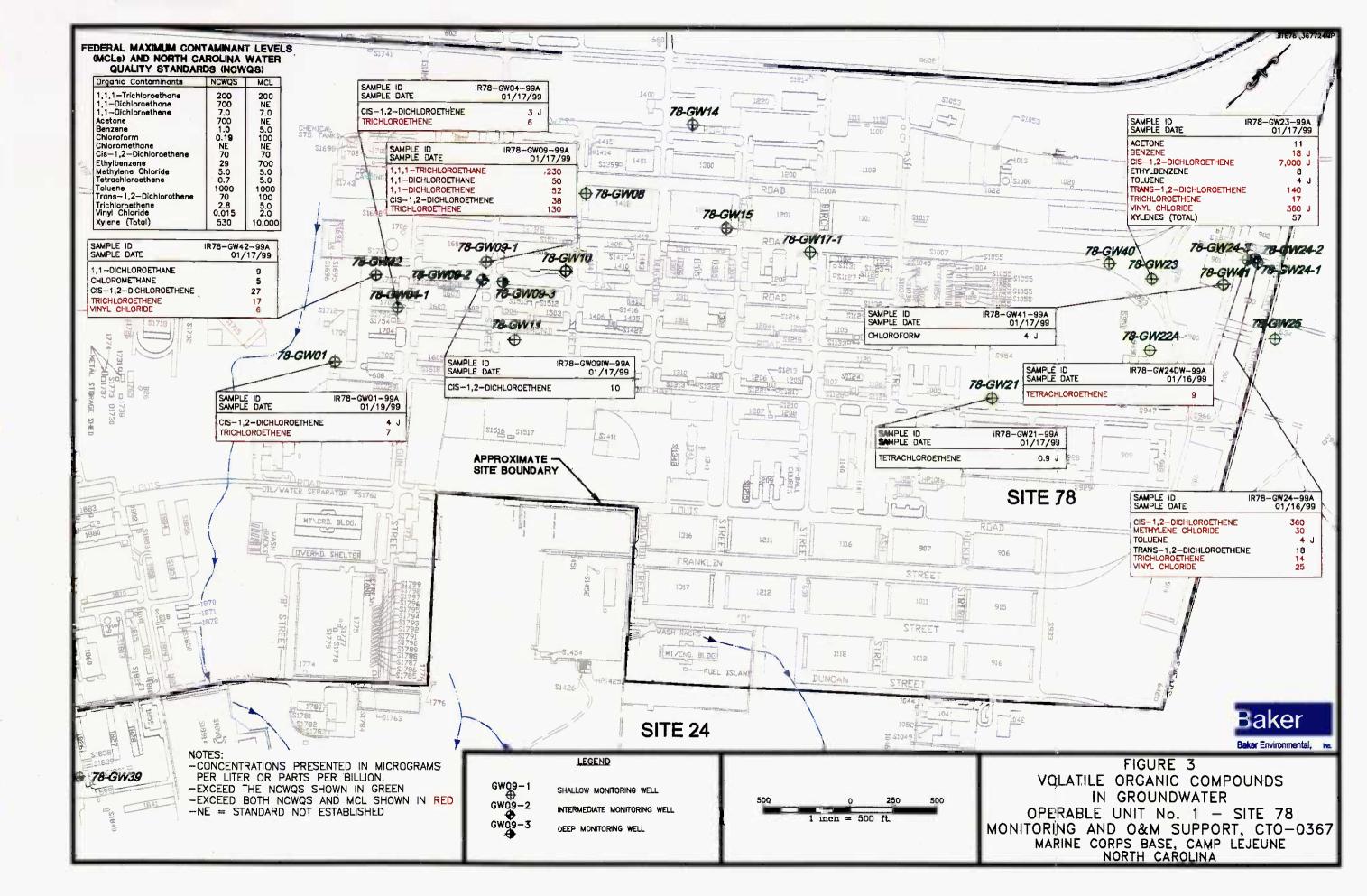
<sup>(1)</sup> Concentrations reported in micrograms per liter (ug/L) or parts per billion. NA = Not analyzed.



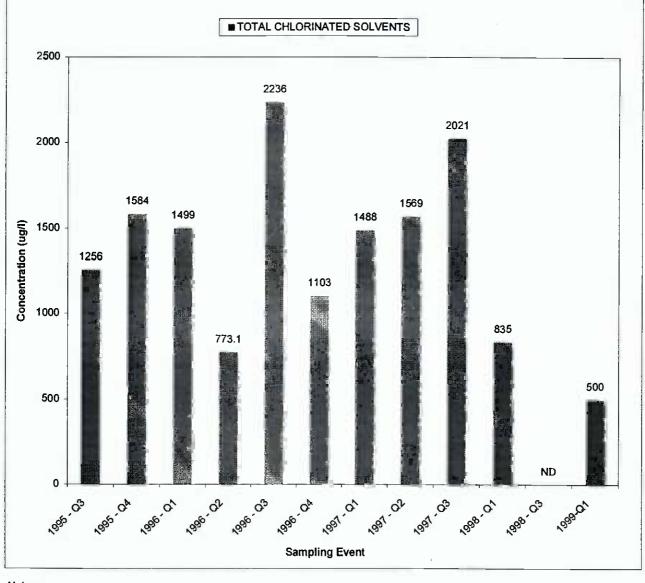








## TOTAL CHLORINA TED SOLVENT RESULTS FROM 78-GW09-1 OPERABLE UNIT NO. 1 - SITE 78 MONITORING AND O&M SUPPORT, CTO-0367 MCB, CAMP LEJEUENE, NORTH CAROLINA



Notes:

Q1 - Quarter 1 (January - March) Q2 - Quarter 2 (April - June)

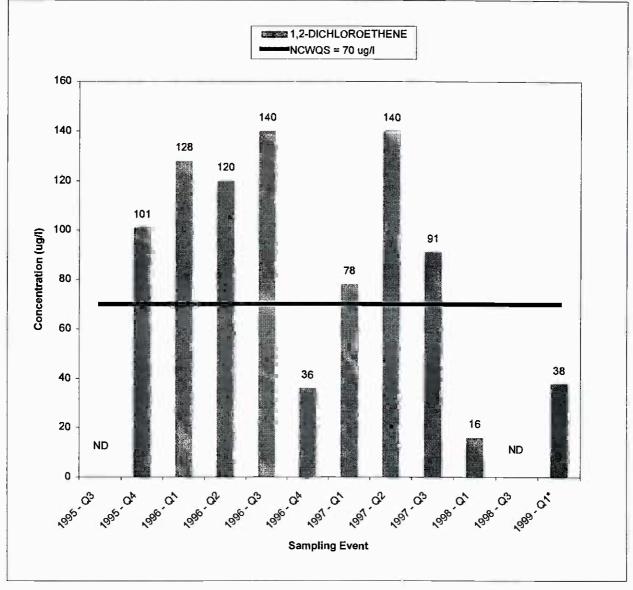
Q3 - Quarter 3 (July - September) Q4 - Quarter 4 (October - December)

This table has been updated from previously submitted versions. "Total chlorinated solvents" is the sum of positive detections of the following: 1,1,1-Trichloroethane; 1,1,2,2-Tetrachloroethane; 1,1,2-Trichloroethane; 1,1-Dichloroethane; 1,1-Dichloroethane; 1,2-Dichloroethane; 1,2-Dichloropropane; Chlorobenzene; Chloroform; Chloroform; Chloromethane; cis-1,3-Dichloropropene; 1,2-Dichloroethene (total from 1995 Q3 through 1998 Q4, cis- and trans- isomers starting 1999 Q1); Methylene chloride; Tetrachloroethene; trans-1,3-Dichloropropene; Trichloroethene; and Vinyl chloride.

Contaminant	Mean	Median	Detection	Detections
	Detection	Detection	Frequency	Above Standards
TOTAL CHLORINATED SOLVENTS	1239	1372	11/12	not applicable

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## 1,2-DICHLOROETHENE RESULTS FROM 78-GW09-1 OPERABLE UNIT NO. 1 - SITE 78 MONITORING AND O&M SUPPORT, CTO-0367 MCB, CAMP LEJEUENE, NORTH CAROLINA



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

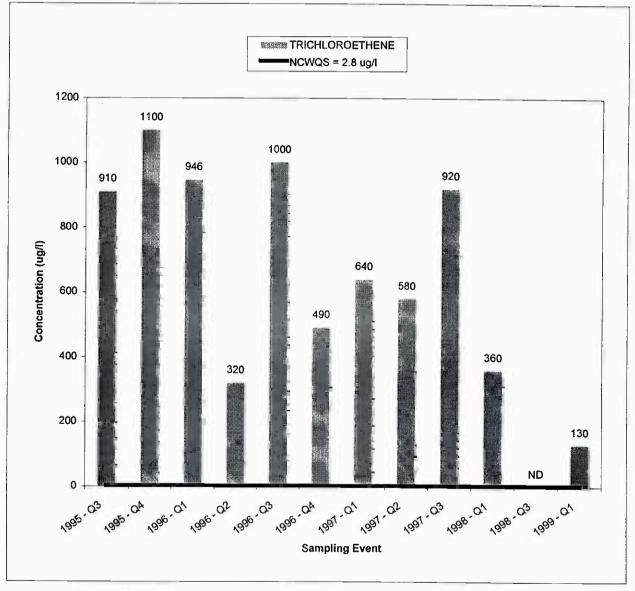
#### Notes:

Federal Maximum Contaminant Level (MCL) = 7 micrograms per liter (ug/l) North Carolina Water Quality Standard (NCWQS) = 7 micrograms per liter (ug/l) \* Values reported for 1999 - Q1 are for cis-1,2-dichloroethene

Contaminant	Mean	Median	Detection	Detections
	Detection	Detection	Frequency	Above Standards
1,2-DICHLOROETHENE (Total)	74	84.5	10/12	7/12

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



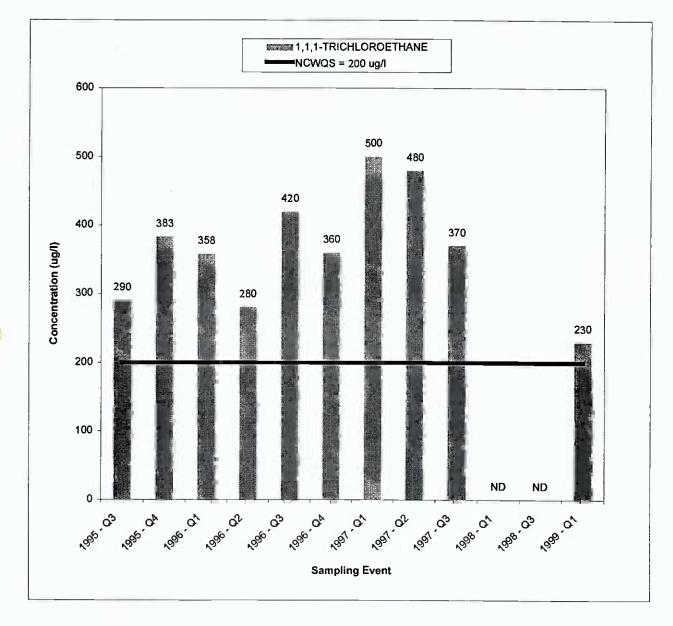
Q1 - Quarter 1 (January - March) Q2 - Quarter 2 (April - June) Q3 - Quarter 3 (July - September) Q4 - Quarter 4 (October - December)

Notes:

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

Contaminant	Mean	Median	Detection	Detections
	Detection	Detection	Frequency	Above Standards
TRICHLOROETHENE	616	610	11/12	11/12

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



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

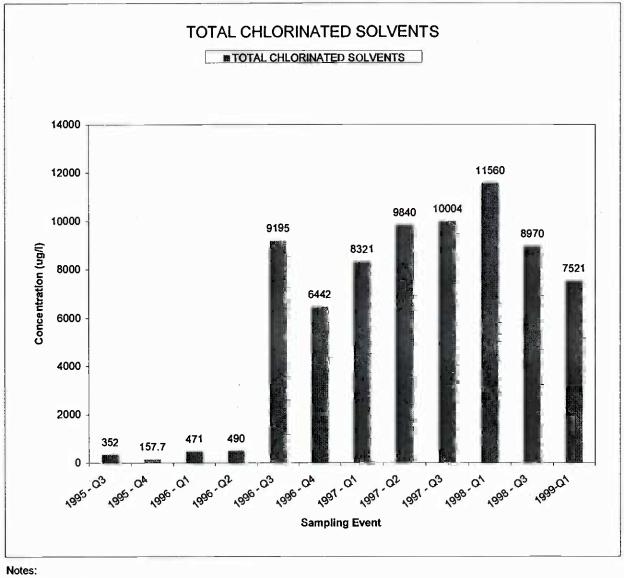
Notes:

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

Contaminant	Mean	Median	Detection	Detections
	Detection	Detection	Frequency	Above Standards
1,1,1-TRICHLOROETHANE	306	359	10/12	10/12

#### **FIGURE 8**

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



Q1 - Quarter 1 (January - March) Q2 - Quarter 2 (April - June)

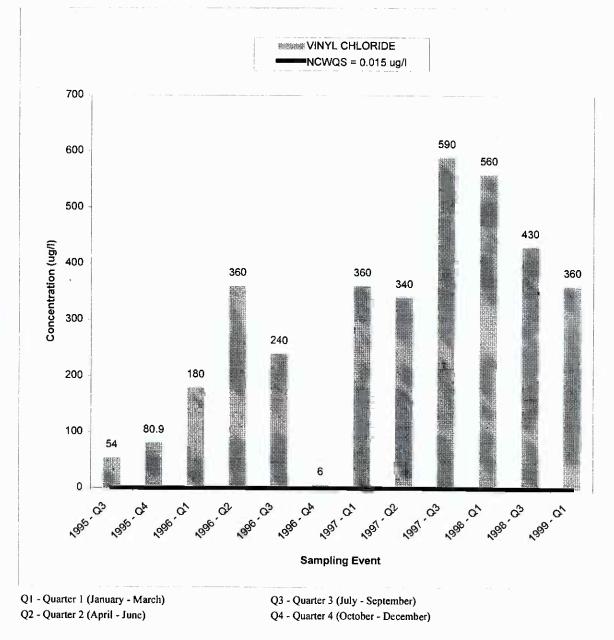
Q3 - Quarter 3 (July - September) Q4 - Quarter 4 (October - December)

This table has been updated from previously submitted versions. "Total chlorinated solvents" is the sum of positive detections of the following: 1,1,1-Trichloroethane; 1,1,2,2-Tetrachloroethane; 1,1,2-Trichloroethane; 1,1-Dichloroethane; 1,2-Dichloroethane; 1,2-Dich

Contaminant	Mean	Median	Detection	Detections
	Detection	Detection	Frequency	Above Standards
TOTAL CHLORINATED SOLVENTS	6110	7921	12/12	not applicable

#### **FIGURE 9**

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



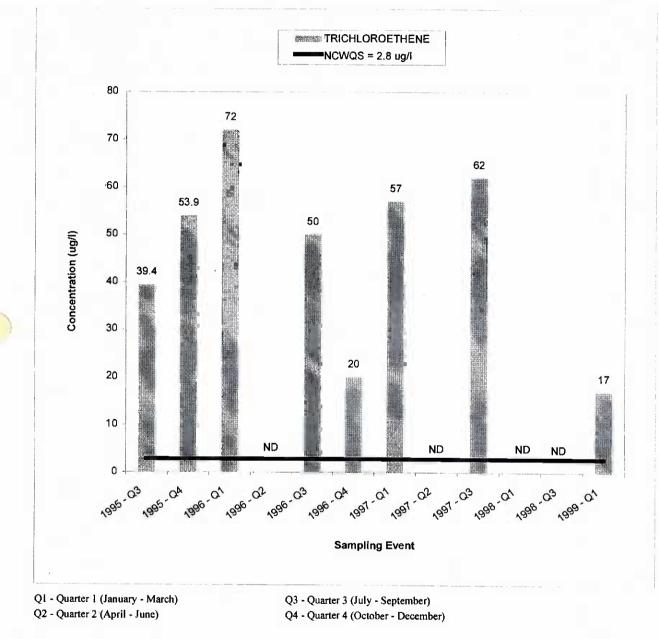
#### Notes:

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

Contaminant	Mean	Median	Detection	Detections
	Detection	Detection	Frequency	Above Standards
VINYL CHLORIDE	297	350	12/12	12/12

### **FIGURE 10**

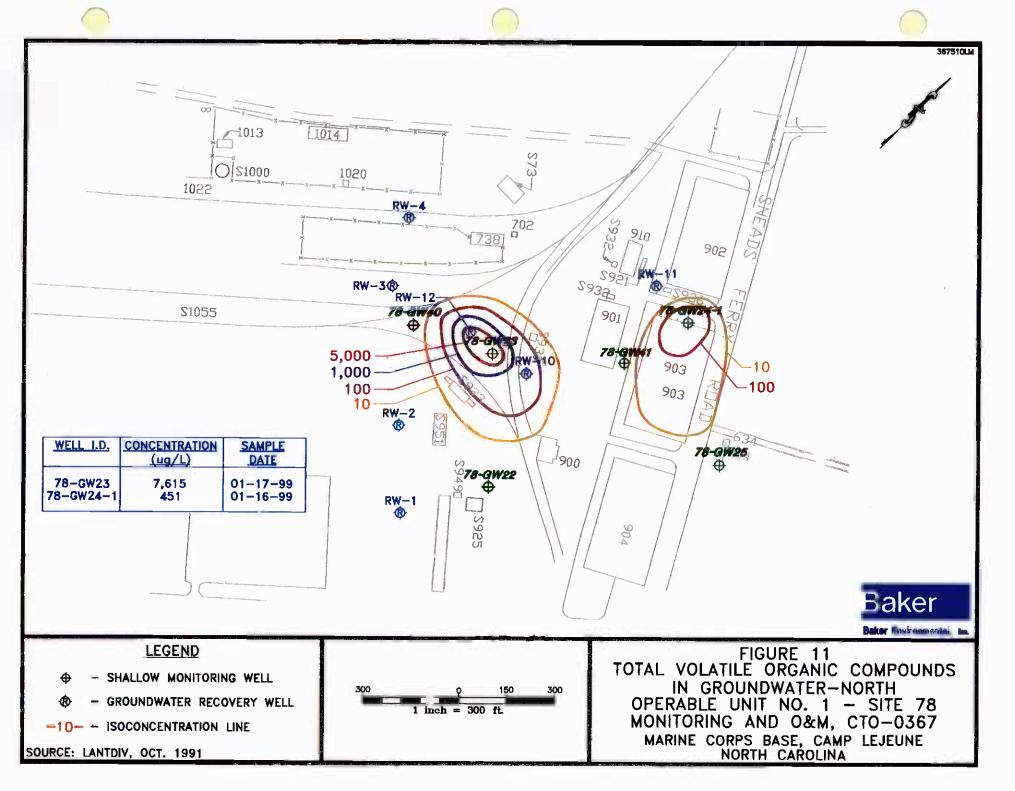
### TRICHLOROETHENE RESULTS FROM 78-GŴ23 OPERABLE UNIT NO. I - SITE 78 MONITORING AND O&M SUPPORT, CTO-0367 MCB, CAMP LEJEUENE, NORTH CAROLINA

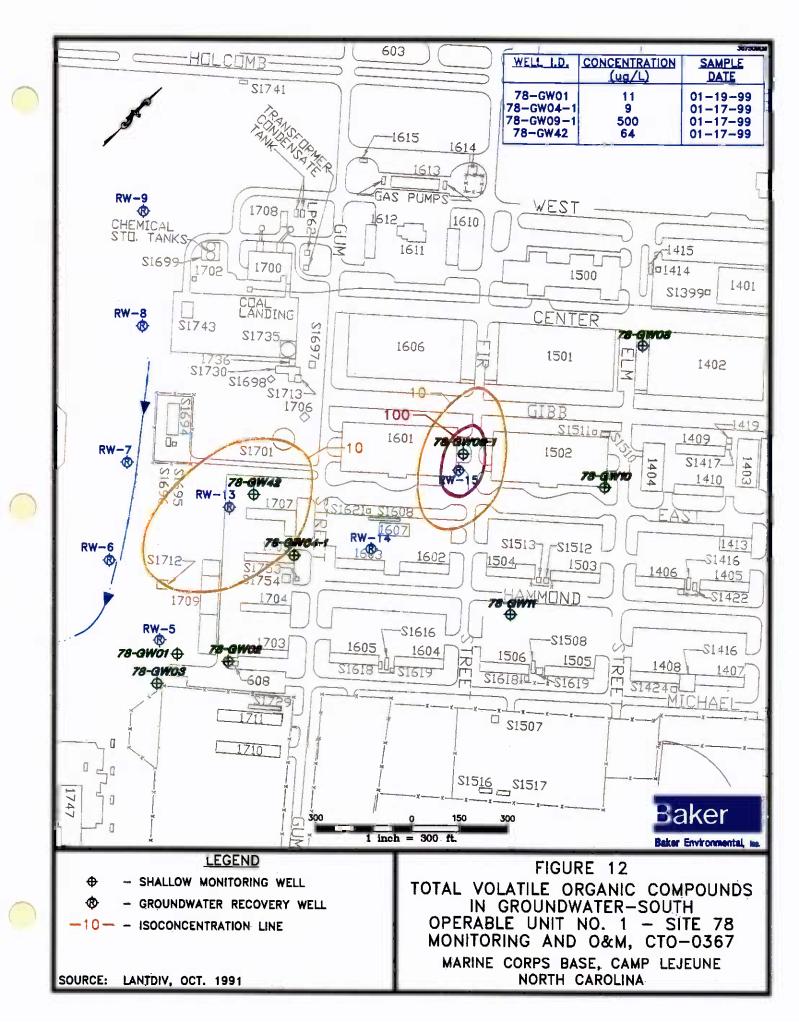


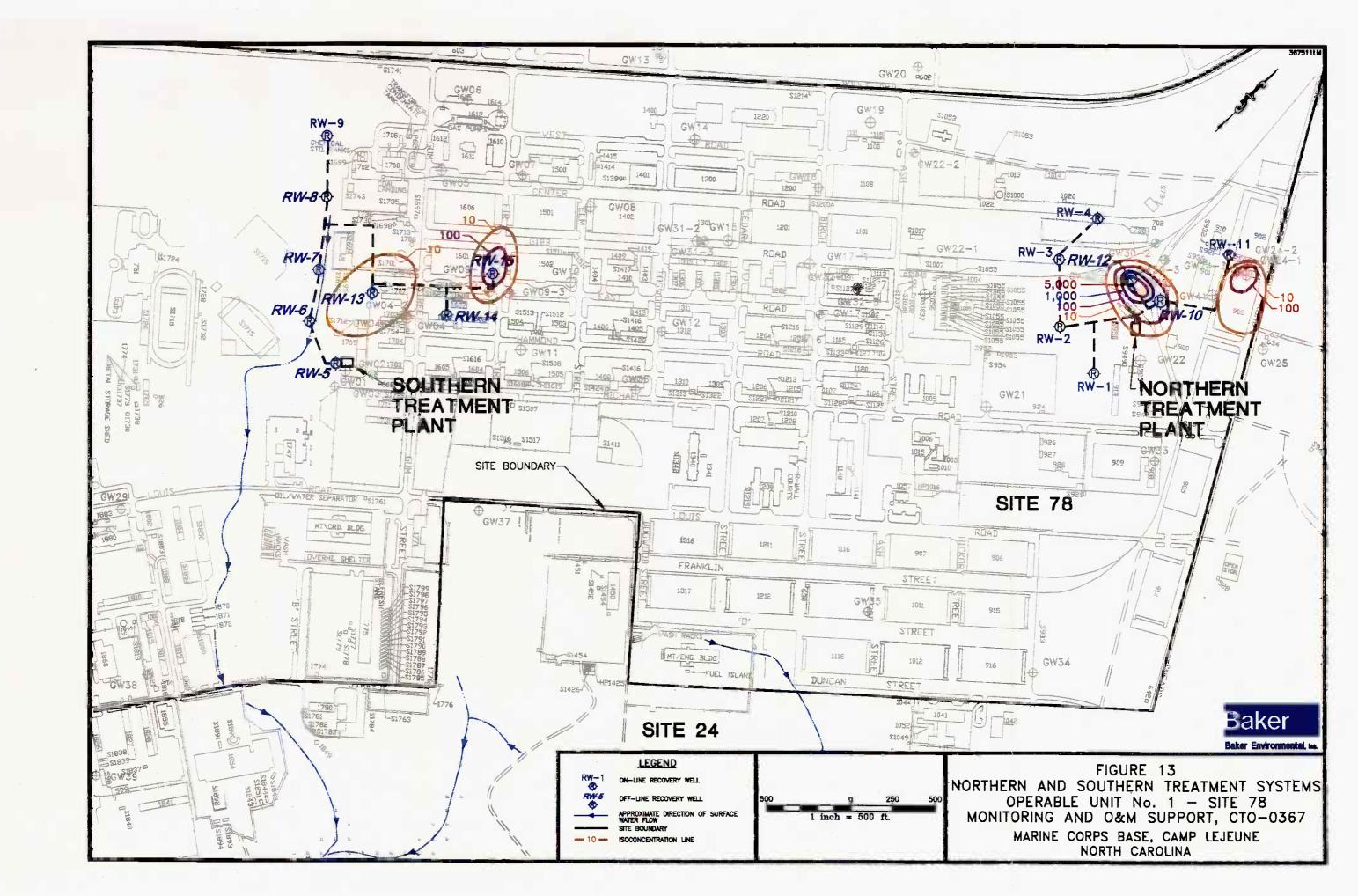
#### Notes:

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

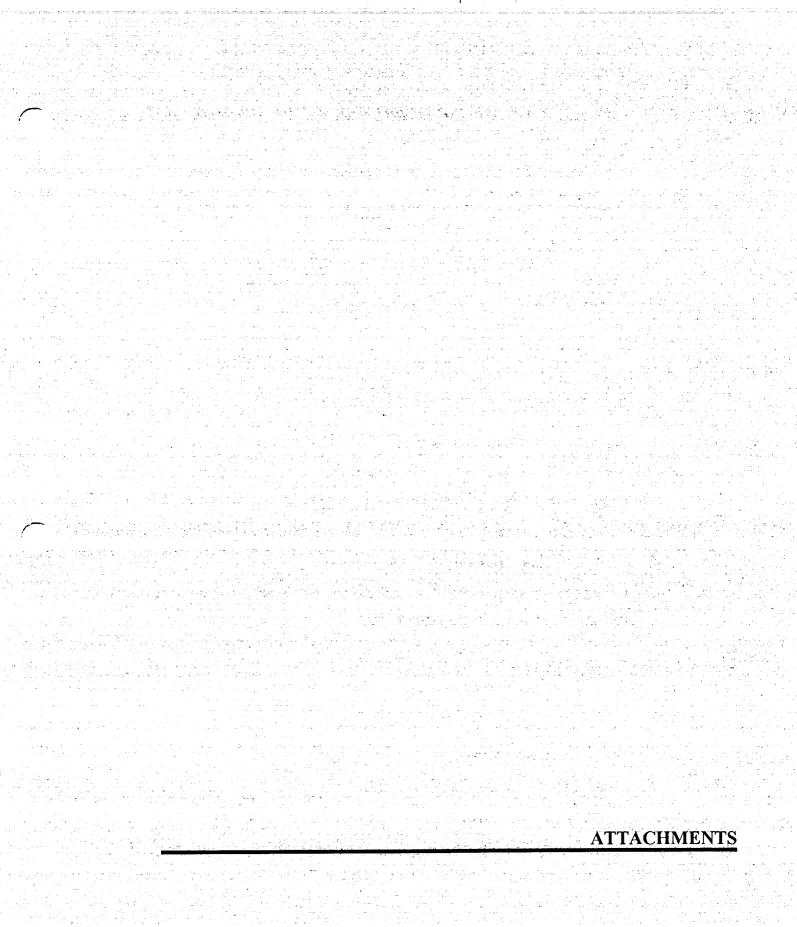
Contaminant	Mean	Median	Detection	Detections
	Detection	Detection	Frequency	Above Standards
TRICHLOROETHENE	31	30	8/12	8/12







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ATTACHMENT A CHAIN OF CUSTODY DOCUMENTATION

ompany Name:	roject Manager or Contact:		Par	ameters/M	ethod Nun	nbers f	or Analys	sis	Chain	of Custody Rec	ord
ompany Name: Baker Environmenta (Inc. F	Phone: (412) 269 - 2015			8						EA Laboratories     19 Loveton Circle	,
roject No.	Project Name: Camp Lejeune, LTM		$ \mathcal{O} $	20	1 1					<ul> <li>EA Laboratories 19 Loveton Circle Sparks, MD 2115 Telephone: (410) Fax: (410) 771-4</li> </ul>	2 771-4920
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elinquished by: (Signature)	Date/Time Received b	y Lab	orato	y: (Signatu	re)	Da	te/Time	Airbill Nu		Sample Shippe	d by: (Circl
Can Breckhe	1/11/99 1505								077591602	•	ro. UP:
ooler TempC pH: Yes	No Comments:				ustody Se			es No	•	Hand Carried	١.
OTE: Please indicate method number for	analyses requested. This will help c	larify a	iny que	stions with l		_		anager		Other: Shaded Areas for L	

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Project N	0.			Proje	t Nam	10:		1 - 1		ACMCX	ŝ.										<b>F-)</b> i	Sparks, MD 21152 Telephone: (410) 7 Fax: (410) 771-440	71-4 07
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Chain of Custody Record Company Name: Project Manager or Contact: Parameters/Method Numbers for Analysis Tom Trebilcock Phone: (412) 264-2015 Belker Environmental EA Laboratorias 19 Loveton Circle Sparks, MD 21152 Telephone: (410) 771-4920 Fax: (410) 771-4407 Project No. Project Name: CampLejeune-LTM Dept.: Task: FS S Report Deliverables Sample Storage Location: ATO Number: 2 3 1 ™.D. ...E. 40171 No. of Containers EDD: Yes/No Report #: Page 2 of 3 يو المراجع ( 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1 DUE TO CLIENT: 1949 EA Labs Water Ū Accession Sample Identification Soll 1-Number Time **19 Characters** Date Remarks 3 X 1/17 1215 IIE17181-161W11171-1991A1 LPM: 187181-16W1991IWI-91AA 3 Y 1/17 1555 ZIRI7181-161410191-19191AI 3 ス 1/17 1530 Х 1 3 IRTS-GWILL-199A 1/17 0930 Х  $\times$ 3 0015 IRIT KI-GIWI4121-1919 AI × Х 1/17 3 1020 X IR1718-16141-19191A IR17191-16W1/101-19191AT 2 0425 1/17 X  $\mathbf{\tilde{x}}$ ILIAI7FSI-IGIWHIII-I9AIAI 2 1/17 1500 X X 1600 IR17141-161414101-19191A1 2 Y 1/17 X 1650 IR715-6141213-1919141 3 Х 1/17 X 3 1545 X IR7181-161W12121A1-19191A1 X 1/17 2 2  $\mathbf{V}$ (111170) **~** ...: 2.10 2 N. INUM GWT 24 1111055 4 -7 Ý 7777 7695 LINDA LANZIONA 177 ט כדון סיקד 1 N 2 + G N 1 1 1 9 - 1 / 7 P × Relinguished by: (Signature) Samples by: (Signature) Date/Time Date/Time | Received by: (Signature) Date/Time Relinquished by: (Signature) Date/Time Received by Laboratory: (Signature) Date/Time Airbill Number: Sample Shipped by: (Circle) 1/14/19 1:25 806677591602 Ellen Brablie Fed Ex. Puro. UPS

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NOTE: Please indicate method number for analyses requested. This will help clarify any questions with laboratory techniques.

PINK-Project, Manager

Custody Seals Intact

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Company Name:	Project Manager or Contact: Tum Tschill Cock Phone: (4/2)269-2015		. Pa	aram	eters/	Met	hod Nu	mbe	ers for A	nalys	is		Chain	of Custody Reco	rd
Baker Environment/In	Phone: (4/2)269-2015			22		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				~3	3.0			<ul> <li>EA Laboratories</li> <li>19 Loveton Circle</li> <li>Sparks, MD 21152</li> <li>Telephone: (410) 77</li> <li>Fax: (410) 771-4407</li> </ul>	
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**ATTACHMENT B** 

MONITORING PROGRAM ANALYTICAL RESULTS N. 1 朝武家 1988 - 27 B

#### GROUNDWATER ANALYTICAL RESULTS OPERABLE UNIT NO. 2 - SITE 78 MONITORING AND O&M SUPPORT, CTO-0367 MCB, CAMP LEJEUNE, NORTH CAROLINA VOLATILE ORGANICS

SAMPLE ID	IR78-GW24IW-99A	IR78-GW25-99A	IR78-GW39-99A	IR78-GW40-99A	IR78-GW41-99A	IR78-GW42-99A
DATE SAMPLED	1/16/99	1/16/99	1/17/99	1/17/99	1/17/99	1/17/99
VOLATILES (ug/L)	5 U	5 U	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	5 U	5 U
	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U 5 U	5 U	5 U	5 U	9
1,1-Dichloroethane 1,1-Dichloroethene	5 U 5 U	5 U	5 U	5 U	5 U	5 U
	5 U 5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U 5 U	5 U	5 U	5 U 5 U	5 U	5 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone 2-Hexanone	10 U	10 U	10 U	10 U 10 U	10 U	10 U
	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
Acetone Benzene	10 U	5.U	5 U	5 U	5 U	5 U
Bromodichloromethane	5 U	5.U 5 U	5 U	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U	5 U	5 U	5 U
Bromonothane	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U	4 J	5 U
Chloromethane	5 U	5 U	5 U	5 U	5 U	5
cis-1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U	27
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U	5 U	17
Vinyl chloride	5 U	5 U	5 U	. 5 U	5 U	6
Xylenes	5 U	5 U	5 U	5 U	5 U	5 U
	5.6				. •	

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#### GROUNDWATER ANALYTICAL RESULTS **OPERABLE UNIT NO. 2 - SITE 78** MONITORING AND O&M SUPPORT, CTO-0367 MCB, CAMP LEJEUNE, NORTH CAROLINA VOLATILE ORGANICS

SAMPLE ID	IR78-GW01-99A	IR78-GW04-99A	IR78-GW08-99A	IR78-GW09-99A	IR78-GW09DW-99A	IR78-GW09IW-99A	IR78-GW10-99A	IR78-GW11-99A
DATE SAMPLED	1/19/99	1/17/99	1/17/99	1/17/99	1/17/99	1/17/99	1/17/99	1/17/99
VOLATILES (ug/L)								
1,1,1-Trichloroethane	5 U	5 U	5 U	230	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	230 5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	50	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	52	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U				
2-Hexanone	10 U	10 U	10 U	10 U				
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U				
Acetone	10 U	10 U	10 U	10 U				
Benzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	5 U	5 U	5 U	5 U	5 U	. 5 U	5 U	5 U
Bromoform	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromomethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	4 J	3 J	5 U	38	5 U	10	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	7	6	5 U	130	5 U	5 U	5 U	5 U
Vinyl chloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylenes	5 U	5 U	5 U	🖉 5 Ŭ	5 U	5 U	5 U	5 U
IR-78.xls 5/20.	/99							1 of 3

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#### GROUNDWATER ANALYTICAL RESULTS OPERABLE UNIT NO. 2 - SITE 78 MONITORING AND O&M SUPPORT, CTO-0367 MCB, CAMP LEJEUNE, NORTH CAROLINA VOLATILE ORGANICS

SAMPLE ID	IR78-GW14-99A	IR78-GW15-99A	IR78-GW17-99A	IR78-GW21-99A	IR78-GW22A-99A	IR78-GW23-99A	IR78-GW24-99A	IR78-GW24DW-99A
DATE SAMPLED	1/16/99	1/17/99	1/17/99	1/17/99	1/17/99	1/17/99	1/16/99	1/16/99
VOLATILES (ug/L)								
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U				
2-Hexanone	10 U	10 U	10 U	10 U				
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U				
Acetone	10 U	11	10 U	10 U				
Benzene	5 U	5 U	5 U	5 U	5 U	18	5 U	5 U
Bromodichloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromomethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U	7000	360	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	8	5 U	5 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U	5 U	30	5 U
Styrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5 U	5 U	5 U	0.9 J	5 U	5 U	5 U	9
Toluene	5 U	5 U	5 U	5 U	5 U	4 J	4 J	5 U
trans-1,2-Dichloroethene	5 U	5 U	5 U	. 5 U	5 U	140	18	5 U
trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U	5 U	17	14	5 U
Vinyl chloride	5 U	5 U	5 U	5 U	5 U	360 J	25	5 U
Xylenes	5 U	5 U	5 U	5 U	5 U	57	5 U	5 U

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5.2. s. a. ให้กระเสียชั่วไว้ จะหว่าสึกเสลไม่ไ na sinan na na sina Mangharan na sinan si Ang sinangaran sa sinan  $\begin{array}{c} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n$ Andra an trác Antra ann trác an an د در است. موجد است. موجد استان ا ure sur l'ancès de la construction de la construcción de la construcción de la construcción de la construcción Receptor de la construcción de la c Receptor de la construcción de la c  $\{1,2,2\}_{p}$ 이는 이야지 가장가 가장 좋다. 이번 이렇게 같은 한 방법 표. 1 이 영상품 5월 - 1995년 1996년 1996년 - 1995년 영상 1997년 1997년 1997년 1996년 1997년 1997년 1997년 1997년 1997년 1997년 1997년 alar da anti-414. 「新学生」 Æ (1) A set of the se 1 编码法注意 Alter and the second Alter and the second Alter and the second n ga fistade **美国东北部市**国际和中国和 a litera and a second 1891 1992 1997 - - Marine Addition of the first state of the u isg ម្លាប់ ដែលស្ថិត ស្ថិត ស្ថិត អាយុវីសារ អ្នកស្ថិត អ្នកស្ថិត អាយុវីសារ អ្នកស្ថិត អាយុវីសារ អ្នកស្ថិត អ្នកស្ថិត អ្ ស្ថិត អ្នកស្ថិត អ្នកស ស្ថិត អ្នកស្ថិត អ្នកស : : \_\_\_\_\_ . الح 1 1 36 i. irindaadee Sector A state of the second seco (a) A set of the s 9-1**7**-7-2 9 5 la agrica  $\begin{array}{c} & & & \\ & & & & \\ & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & &$ Ŷ 34 a god 1997 - 19 allide MAZ 20 Bahin a 192 2 1.000 الدان جو جو د بو در د. الا دلا بالانتخاذ جار م دا الانتخار بروج جار د Line of 1997 Line and 1997 Line and 1997 (a) A set of the se ¢. 1217 and the second secon -----Pre-. išt A Contraction of the second se ATTACHMENT C TWE 1000 444 ANALYTICAL LABORATORY DATA SHEETS 10 <sup>10</sup> 1 -5F(S.23 

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EPA SAMPLE NO.

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					20005	IR78-GW39-	99A
	Lab Name:	EA LABOI	TATOHIES	_ Contract: 99	90035	L	
	Lab Code:	EA ENG	Case No.:	SAS No.:		SDG No.:	
-	Matrix: (so	il/water)	WATER		Lab Sample ID	: #9900249	
	Sample wt/	vol:	5.0(g/mL)ML	_	Lab File ID	: VH8B9392.E	)
	Level: (k	ow/med)	-		Date Received	: 1/19/99	
	% Moisture	e: not dec.	0		Date Analyzed	: 1/26/99	
	GC Columr	ו: <u>RTX 502.2</u>	2 ID: <u>0.53</u>	_(mm)	Dilution Factor:	1.0	
	Soil Extract	t Volume:	(uL)	Sc	il Aliquot Volume	:	(uL)
	CA	AS No.	Compound	Concentration (ug/L or ug/Kg)		Q	
	74	-87-3	Chloromethane	T	5	U	
		-01-4	Vinyl Chloride		5	U	
		-83-9	Bromomethane		5	U	
	75	-00-3	Chloroethane		5	U	
	67	-64-1	Acetone		10	U	
	75	-35-4	1,1-Dichloroethene		5	U	
	75	-09-2	Methylene Chloride		5	U	
		-15-0	Carbon Disulfide		5	U	
_		6-59-2	cis-1,2-Dichloroethene		5	U	
<b>f</b>		6-60-5	trans-1,2-Dichloroethene		5	U	
		-34-3	1,1-Dichloroethane		5		
		-93-3	2-Butanone		10	U U	
•		-66-3 -55-6	Chloroform 1,1,1-Trichloroethane		<u> </u>	U	
		-23-5	Carbon Tetrachloride		<u>5</u>		
•	L	7-06-2	1,2-Dichloroethane		5	U	
		-43-2	Benzene		5	U	
		-01-6	Trichloroethene		5	U	
		-87-5	1,2-Dichloropropane		5	U	
$\mathcal{P}$		-27-4	Bromodichloromethane		5	U	
i	10	8-10-1	4-Methyl-2-Pentanone		10	U	
	10	061-01-5	cis-1,3-Dichloropropene		5	U	
	10	8-88-3	Toluene		5	U	
		061-02-6	trans-1,3-Dichloropropene		5	U	
		-00-5	1,1,2-Trichloroethane		5	U	•
		1-78-6	2-Hexanone		10	U	
		7-18-4	Tetrachloroethene		5	· U	
		4-48-1	Chlorodibromomethane		5	U	
		8-90-7	Chlorobenzene		5	U	
ه، يو ر	<u> </u>	0-41-4	Ethylbenzene		5	U	
·		47-6	Xylenes (total)		5	U	
	· · · · · · · · · · · · · · · · · · ·	0-42-5	Styrene		<u>5</u> 5	UU	
· · · ·	1/5	5-25-2	Bromoform	l	C	<u> </u>	

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				EPA SAMPLE N
		VOLATILE ORGAI	NICS ANALYSIS DATA SHEET	IR78-GW39-99A
	Lab Name: EA LABO	RATORIES	Contract: 990035	
	Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
	Matrix: (soil/water)	WATER	Lab Sample I	D: <u>#9900249</u>
	Sample wt/vol:	5.0(g/mL)ML	_ Lab File I	D: <u>VH8B9392.</u> D
	Level: (low/med)		Date Receive	d: <u>1/19/99</u>
	% Moisture: not dec.	0	Date Analyze	d: <u>1/26/99</u>
	GC Column: RTX 502.2	2 ID: <u>0.53</u>	(mm) Dilution Factor	or: <u>1.0</u>
	Soil Extract Volume:	(uL)	Soil Aliquot Volum	e: (uL)
			Concentration Units:	
	CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
	79-34-5	1,1,2,2-Tetrachloroethane	5	U
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		14		EPA SAMPLE NU.
		VOLATILE ORGANIC	S ANALYSIS DATA SHEET	IR78-GW24DW-99A
L	ab Name: EA LABOF	ATORIES	Contract: 990035	1170-GW24DW-99A
L	ab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
<u></u> м	/atrix: (soil/water)	WATER	Lab Sample ID:	#9900251
S	Sample wt/vol:	5.0 (g/mL) ML	Lab File ID:	VH8B9401.D
	.evel: (low/med)		Date Received	. 1/19/99
	6 Moisture: not dec.	0	Date Analyzed:	
	GC Column: RTX 502.2	ID: 0.53 (r	nm) Dilution Factor:	
	Soil Extract Volume:	(uL)	Soil Aliquot Volume:	•
-			Concentration Units:	(1-)
	CAS No.		ug/L or ug/Kg) ug/L	Q
	74-87-3	Chloromethane	5	U
	75-01-4	Vinyl Chloride	5	U
	74-83-9	Bromomethane	5	U
	75-00-3	Chloroethane	5	U
	67-64-1	Acetone	10	U
	75-35-4	1,1-Dichloroethene	5	U
	75-09-2	Methylene Chloride	5	U
	75-15-0	Carbon Disulfide	5	U
	156-59-2	cis-1,2-Dichloroethene	5	U
	156-60-5	trans-1,2-Dichloroethene	5	U
E	75-34-3	1,1-Dichloroethane	5	U
	78-93-3	2-Butanone	10	U
	67-66-3	Chloroform	5	U
	71-55-6	1,1,1-Trichloroethane	5	U
	56-23-5	Carbon Tetrachloride	5	U
•	107-06-2	1,2-Dichloroethane	5	U
	71-43-2	Benzene	5	U
	79-01-6	Trichloroethene	5	U
	78-87-5	1,2-Dichloropropane	5	U
₽.	75-27-4	Bromodichloromethane	5	U
i	108-10-1	4-Methyl-2-Pentanone	10	U
	10061-01-5	cis-1,3-Dichloropropene	5	U
	108-88-3	Toluene	5	U
	10061-02-6	trans-1,3-Dichloropropene	5	U
	79-00-5	1,1,2-Trichloroethane	5	U .
	591-78-6	2-Hexanone	10	U
	127-18-4	Tetrachloroethene	9.	
	124-48-1	Chlorodibromomethane	5	U
	108-90-7	Chlorobenzene	5	U
	100-41-4	Ethylbenzene	5	U
	95-47-6	Xylenes (total)	5	U
_	100-42-5	Styrene	5	U
	75-25-2	Bromoform	5	U

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							SIS DATA SHEET	EPA SAM	PLE NU.
	Lab Narr	ne: EA LABOF			UNGAN	Contract:		IR78-GW24	DW-99A
		e: EA ENG		ase No.:		- SAS No.:		SDG No.:	
		(soil/water)	WATER	-		-	Lab Sample ID:	#9900251	<u> </u>
	Sample		5.0	- (g/mL)	ML		Lab File ID:	VH8B9401.I	D
		(low/med)	<b></b>	/ -		-	Date Received:	1/19/99	
-		ure: not dec.	0	-			Date Analyzed:	1/27/99	
	GC Colu	ımn: RTX 502.2		- ID:	0.53	(mm)	Dilution Factor:	1.0	
		act Volume:		 (uL)		-	Soil Aliquot Volume:		(uL)
		CAS No.	Compound	-		Concentrati (ug/L or ug/	ion Units:	Q	
		79-34-5	1,1,2,2-Te	trachloro	ethane		5	U	
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EPA SAMPLE NO.

Lab	Name: EA LABO	RATORIES	Contract: 99		IR78-GW24	-99A
	Code: EA ENG	Case No.:	SAS No.:	· · · · · · · · · · · · · · · · · · ·	SDG No.:	
Matr	ix: (soil/water)	WATER		Lab Sample ID:	#9900252	
Sam	ple wt/vol:	5.0 (g/mL) ML		Lab File ID:	VH8B9402.[	)
Leve	el: (low/med)			Date Received:	1/19/99	
% M	oisture: not dec.	0		Date Analyzed:	1/27/99	
GC	Column: <u>RTX 502.2</u>	2 ID: <u>0.53</u>	(mm)	Dilution Factor:	1.0	
Soil	Extract Volume:	(uL)	Soi	Aliquot Volume:		(uL)
						<b>、</b>
		Compound	Concentration L		<u> </u>	
	CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q	
	74-87-3	Chloromethane		5	U	
	75-01-4	Vinyl Chloride		5	U	
	74-83-9	Bromomethane		5	U	
	75-00-3	Chloroethane		5	U	
	67-64-1	Acetone		10	U	
	75-35-4	1,1-Dichloroethene		5	U	
	75-09-2	Methylene Chloride		5	υ	
	75-15-0	Carbon Disulfide		5	υ	
	156-59-2	cis-1,2-Dichloroethene		5	U	
$\frown$	156-60-5	trans-1,2-Dichloroethene		5	U	
	75-34-3	1,1-Dichloroethane		5	U	
	78-93-3	2-Butanone		10	U	
	67-66-3	Chloroform		5	U	
	71-55-6	1,1,1-Trichloroethane		5	U	
	56-23-5	Carbon Tetrachloride		5	U	
•	107-06-2	1,2-Dichloroethane		5	U	
	71-43-2	Benzene		5	U	
	79-01-6	Trichloroethene		5	U	
	78-87-5	1,2-Dichloropropane		5	U	
P.	75-27-4	Bromodichloromethane		5	U	
ſ	108-10-1	4-Methyl-2-Pentanone		10	U	
	10061-01-5	cis-1,3-Dichloropropene		5	U	
	108-88-3	Toluene		5	U	
	10061-02-6	trans-1,3-Dichloropropene		5	U	
	79-00-5	1,1,2-Trichloroethane		5	U	•
	591-78-6	2-Hexanone		10	U	
	127-18-4	Tetrachloroetherie		5	U	•
	124-48-1	Chlorodibromomethane		5	U	
	108-90-7	Chlorobenzene		5	U	
	100-41-4	Ethylbenzene		5	U	
میں ایک	95.47-6	Xylenes (total)		5	U	
$\sim$	100-42-5	Styrene		5	U	
- - 	75-25-2	Bromoform		5	U	
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VOLATILE ORGANICS ANALYSIS DATA SHEET

		1A NICS ANALYSIS DATA SHEET	EPA SAM	PLE NO.
Lab Name: EA LABOR		Contract: 990035	IR78-GW24	I-99A
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:	
		Lab Sample IE		
Matrix: (soil/water)	WATER			<b>-</b>
Sample wt/vol:	5.0(g/mL)1	-	): VH8B9402.	J
Level: (low/med)		Date Received		
% Moisture: not dec.	0	Date Analyzed	t: <u>1/27/99</u>	
GC Column: RTX 502.2	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.	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
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# 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 1878-TB02-00A

Lab Name:	EA LABOR				Contract:	990035	110-1602-5	ISA
Lab Maine.					-		L	
Lab Code:	EA ENG	Ca	se No.:		SAS No.:		SDG No.:	
Matrix: (soi	l/water)	WATER				Lab Sample ID	: #9900253	
Sample wt/v	vol:	5.0	(g/mL) _	ML	-	Lab File ID	: <u>VH8B9403.</u> [	)
Level: (lo	w/med)					Date Received	: 1/19/99	
% Moisture:	not dec.	0	•			Date Analyzed	: 1/27/99	
GC Column	: <u>RTX 502.2</u>		ID:	0.53	_(mm)	Dilution Factor	: 1.0	
Soil Extract	Volume:		(uL)			Soil Aliquot Volume	:	(uL)
CA	S No.	Compound	I		Concentratio (ug/L or ug/l		Q	
74	.87-3	Chloromet	hano			5		

74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U U
75-09-2		5	U U
	Methylene Chloride		
75-15-0	Carbon Disulfide	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5		5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	υ
127-18-4	Tetrachloroethene	5	U
124-48-1	Chlorodibromomethane	5	U
108-90-7	Chlorobenzene	5	υ
100-41-4	Ethylbenzene	5	U
95-47-6	Xylenes (total)	5	U.
100-42-5	* Styrene	5	U
75-25-2	Bromoform	5	U

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EPA SAMPLE NO.

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Lab Na	me: EA LABO	RATORIES	Contract: 990035	IR78-TB02-99A
	de: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix:	(soil/water)	WATER	Lab Sample IE	): #9900253
Sample	wt/vol:	5.0 (g/mL) ML	Lab File IC	): <u>VH8B9403.</u> D
Level:	(low/med)		Date Received	d: <u>1/19/99</u>
% Moist	ture: not dec.	0	Date Analyzed	d: <u>1/27/99</u>
GC Col	umn: <u>RTX 502.</u> :	2 ID: <u>0.53</u>	(mm) Dilution Factor	:1.0
Soil Ext	ract Volume:	(uL)	Soil Aliquot Volume	e: (uL)
	CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
	79-34-5	1,1,2,2-Tetrachloroethane	5	U
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EPA SAMPLE NO.

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			VOLATILE OTION			IR78-GW14-	-99A
	Lab Name	EA LABOR	ATORIES	Contract:			
$\sim$	Lab Code	EA ENG	Case No.:	SAS No.:		SDG No.:	
	Matrix: (s	oil/water)	WATER		Lab Sample ID:	#9900258	
	Sample w	rt/vol:	5.0 (g/mL) ML	_	Lab File ID:	VH8B9408.0	C
-	Level:	(low/med)			Date Received:	1/19/99	
	% Moistu	re: not dec.	0		Date Analyzed:	1/27/99	
	GC Colun	nn: RTX 502.2	ID: 0.53	_(mm)	Dilution Factor:	1.0	
	Soil Extra	ct Volume:	(uL)		Soil Aliquot Volume:		(uL)
			**************************************	Concentratio	on Units:		
	C	CAS No.	Compound	(ug/L or ug/l		Q	
	F			·····		<u> </u>	
	L	4-87-3	Chloromethane		5	U	
		75-01-4	Vinyl Chloride		5	U	
	<u>بر</u>	4-83-9	Bromomethane		5	U	
		25-00-3	Chloroethane		5	U	
		7-64-1	Acetone		10	U	
		5-35-4	1,1-Dichloroethene		5	U	
		5-09-2	Methylene Chloride	····	5	U	
		5-15-0	Carbon Disulfide		5	U	
		56-59-2	cis-1,2-Dichloroethene		5	U	
		56-60-5	trans-1,2-Dichloroethene		5	U	
		<u>/5-34-3</u>	1,1-Dichloroethane		5	U	
		8-93-3	2-Butanone		10	U	
-		57-66-3	Chloroform		5	U	
		1-55-6	1,1,1-Trichloroethane		5	U	
		6-23-5	Carbon Tetrachloride		5	U	
		07-06-2	1,2-Dichloroethane		5	U	
		1-43-2	Benzene		5	U	
		9-01-6	Trichloroethene		5	U	
€./		8-87-5	1,2-Dichloropropane		5	U U	
Ĩ		25-27-4	Bromodichloromethane		<u> </u>	U U	
		08-10-1	4-Methyl-2-Pentanone		5	U U	•
		0061-01-5 08-88-3	cis-1,3-Dichloropropene		5	U U	
			Toluene		5	U	
		0061-02-6	trans-1,3-Dichloropropene		5		
	L	<u>'9-00-5</u>	1,1,2-Trichloroethane				•
		91-78-6	2-Hexanone		10		
		27-18-4	Tetrachloroethene	_	5		
	L	24-48-1	Chlorodibromomethane		5	U	
	· · · · ·	08-90-7	Chlorobenzene		5	U	
وهم المحالين ال	L_	00-41-4	Ethylbenzene		5	U	
		5-47-6	Xylenes (total)		5	U	
	L	00-42-5	Styrene		5	U	
2°	. [/	75-25-2	Bromoform		5	U	

### 1A

EPA SAMPLE NO.

Lab Name:       EA LABORATORIES       Contract:       990035         Lab Code:       EA ENG       Case No.:       SAS No.:       SDG No.:         Matrix:       (soil/water)       WATER       Lab Sample ID: #9900258         Sample wt/vol:       5.0       (g/mL)       ML       Lab Simple ID: #9900258         Sample wt/vol:       5.0       (g/mL)       ML       Lab Simple ID: #9900258         Level:       (low/med)			VOLATILE ONG	ANICS ANALYSIS DATA SHEET	IR78-GW14-99
Matrix: (soil/water)       WATER       Lab Sample ID: #9900258         Sample wt/vol:       5.0 (g/mL)       ML       Lab Sample ID: #9900258         Level: (low/med)	Lab Nam	e: EA LABO	RATORIES	Contract: 990035	
Sample wt/vol:       5.0 (g/mL) _ML       Lab File ID: VH8B9406.D         Level:       (low/med)       Date Received: 1/19/99         % Moisture:       not dec.       0       Date Received: 1/27/99         GC Column: RTX 502.2       ID: _0.53 (mm)       Dilution Factor: _1.0         Soil Extract Volume:	Lab Code	EA ENG	Case No.:	SAS No.:	SDG No.:
Level:       (low/med)       Date Received: 1/19/99         % Moisture:       not dec.       0       Date Analyzed: 1/27/99         GC Column: RTX 502.2       ID:       0.53 (mm)       Dilution Factor:       1.0         Soil Extract Volume:      (uL)       Soil Aliquot Volume:      (uc)         CAS No.       Compound       (ug/L or ug/Kg)      g/L       Q         79-34-5       1,1,2,2-Tetrachloroethane       5       U	Matrix: (	soil/water)	WATER	Lab Sample I	D: <u>#9900258</u>
% Moisture:         not dec.         0         Date Analyzed:         1/27/99           GC Column: RTX 502.2         ID:         0.53         (mm)         Dilution Factor:         1.0           Soil Extract Volume:	Sample v	/t/vol:	5.0 (g/mL) <u>ML</u>	Lab File I	D: VH8B9408.D
GC Column: <u>RTX 502.2</u> ID: <u>0.53</u> (mm)       Dilution Factor: <u>1.0</u> Soil Extract Volume:(uL)       Soil Aliquot Volume:(urg/L or ug/Kg)       _ug/L Q         79-34-5       1,1,2,2-Tetrachloroethane       5       U	Level:	(low/med)		Date Receive	d: <u>1/19/99</u>
Soil Extract Volume:	% Moistu	re: not dec.	0	Date Analyze	d: <u>1/27/99</u>
Concentration Units:       Output       Output <th< td=""><td>GC Colur</td><td>nn: <u>RTX 502.</u></td><td>2 ID:</td><td>(mm) Dilution Facto</td><td>or: <u>1.0</u></td></th<>	GC Colur	nn: <u>RTX 502.</u>	2 ID:	(mm) Dilution Facto	or: <u>1.0</u>
CAS No.       Compound       (ug/L or ug/Kg)       _ug/L       Q         79-34-5       1,1,2,2-Tetrachloroethane       5       U	Soil Extra	ct Volume:	(uL)	Soil Aliquot Volum	e: (u
79-34-5       1.1.2.2-Tetrachloroethane       5       U					
	_				Q
	7	79-34-5	1,1,2,2-Tetrachloroethan	e 5	U
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EPA SAMPLE NO.

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						IR78-GW25-	-99A
	Lab Nar	ne: EA LABOF	RATORIES	Contract: 9	90035		
	Lab Coo	de: <u>EA ENG</u>	Case No.:	SAS No.:		SDG No.:	
27 - 1 1	Matrix:	(soil/water)	WATER		Lab Sample ID:	#9900259	
	Sample	wt/vol:	5.0(g/mL)ML	_	Lab File ID:	VH8B9409.[	)
	Level:	(low/med)			Date Received:	1/19/99	
	% Moist	ture: not dec.	0		Date Analyzed:	1/27/99	
	GC Col	umn: <u>RTX 502.2</u>	ID: 0.53	_(mm)	Dilution Factor:	1.0	
	Soil Ext	ract Volume:	(uL)	Sc Sc	oil Aliquot Volume:		(uL)
				Concentration	Units:		
		CAS No.	Compound	(ug/L or ug/Kg		Q	
		74-87-3	Chloromethane		5	U	
		75-01-4	Vinyl Chloride		5	U	
		74-83-9	Bromomethane		5	U	
		75-00-3	Chloroethane		5	U	
		67-64-1	Acetone		10	U	
		75-35-4	1,1-Dichloroethene		5	U	
		75 <b>-09-</b> 2	Methylene Chloride		5	U	
		75-15-0	Carbon Disulfide		5	U	
		156-59-2	cis-1,2-Dichloroethene		5	U	
		156-60-5	trans-1,2-Dichloroethene		5	U	
		75-34-3	1,1-Dichloroethane		5	U	
		78-93-3	2-Butanone		10	UU	
		67-66-3	Chloroform		5	U	
		71-55-6	1,1,1-Trichloroethane		5	U	
-		56-23-5	Carbon Tetrachloride		5	U	
		107-06-2	1,2-Dichloroethane		5	U	
		71-43-2	Benzene		5	U	
		79-01-6	Trichloroethene		5	U	
¥.		78-87-5	1,2-Dichloropropane		<u>5</u>	UU	
ľ		75-27-4 108-10-1	Bromodichloromethane 4-Methyl-2-Pentanone		10	U U	
		10061-01-5	cis-1,3-Dichloropropene		5	U U	
		108-88-3	Toluene		5	U U	
		10061-02-6	trans-1,3-Dichloropropene		5	U	
		79-00-5	1,1,2-Trichloroethane		5	U	
		591-78-6	2-Hexanone		<u></u>	U	•
		127-18-4	Tetrachloroethene		5	U	
		124-48-1	Chlorodibromomethane		5	U	
		108-90-7	Chlorobenzene		5	U	
		100-41-4	Ethylbenzene		5	U	
			Xylenes (total)		5	U U	
<u>~</u>	C	100-42-5	Styrene		5	U	
÷		75-25-2	Bromoform	· · · · · •	5	U	
		L		l			)

EPA SAMPLE NO.

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Lab Name: EA LAB	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	Contract: <u>990035</u>	
Lab Code: EA ENG	······	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sample I	· · · · · · · · · · · · · · · · · · ·
Sample wt/vol:	<u>5.0 (g/mL) ML</u>	Lab File I	D: VH8B9409.D
Level: (low/med)		Date Receive	ed: 1/19/99
% Moisture: not dec	c. <u>    0                                </u>	Date Analyze	ed: 1/27/99
GC Column: RTX 50	2.2 ID: 0.53	(mm) Dilution Facto	or: <u>1.0</u>
Soil Extract Volume:	(uL)	Soil Aliquot Volum	e: (uL)
CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	e 5	U
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EPA SAMPLE NO.

			VOLATILE ORGAN	ICS ANALYSIS		IR78-GW15-	994
	Lab Nam	e: <u>EA LABO</u> F	RATORIES	Contract: 99			
<u>_</u>	Lab Code	e: <u>EA ENG</u>	Case No.:	SAS No.:		SDG No.:	
	Matrix: (	soil/water)	WATER		Lab Sample ID:	#9900262	
	Sample v	vt/vol:	5.0 (g/mL) ML		Lab File ID:	VH8B9422.0	)
	Level:	(low/med)			Date Received:	1/19/99	
	% Moistu	ire: not dec.	0		Date Analyzed:	1/28/99	
	GC Colu	mn: <u>RTX 502.2</u>	ID: 0.53	(mm)	Dilution Factor:	1.0	
	Soil Extra	act Volume:	(uL)	So	il Aliquot Volume:		(uL)
				Concentration I	Units:		
		CAS No.	Compound	(ug/L or ug/Kg)		Q	
	-			······································			
	L L	74-87-3	Chloromethane		5	U	
		75-01-4	Vinyl Chloride		5	U	
		74-83-9	Bromomethane		5	U	
		75-00-3	Chloroethane		5	U	
		67-64-1	Acetone		10	U	
		75-35-4	1,1-Dichloroethene		5	U	
	(	75-09-2	Methylene Chloride		5	U	
		75-15-0	Carbon Disulfide		5	U	
		156-59-2	cis-1,2-Dichloroethene		5	<u> </u>	
$\frown$		15 <b>6-</b> 60-5	trans-1,2-Dichloroethene		5	U	
		75-34-3	1,1-Dichloroethane		5	U	
		78-93-3	2-Butanone		10	U	
		67-66-3	Chloroform		5	<u> </u>	
		71-55-6	1,1,1-Trichloroethane		5	U	
		56-23-5	Carbon Tetrachloride		5	U	
•		107-06-2	1,2-Dichloroethane		5	U	
		71-43-2	Benzene		5	U	
		79-01-6	Trichloroethene		5	U	
		78-87-5	1,2-Dichloropropane		5	U	
1 P		75-27-4	Bromodichloromethane		5	Ŭ	
,		108-10-1	4-Methyl-2-Pentanone		10	U	
		10061-01-5	cis-1,3-Dichloropropene		5	U	
		108-88-3	Toluene		5	U	i i
		10061-02-6	trans-1,3-Dichloropropene		5	U	
		79-00-5	1,1,2-Trichloroethane		5	U	•
		591-78-6	2-Hexanone		10	U	
		127-18-4	Tetrachloroethene		<u> </u>	U	
		124-48-1	Chlorodibromomethane		5	U	
		108-90-7	Chlorobenzene		5	U	
		100-41-4	Ethylbenzene		5	U	
ي. پر چې شمې د. م		95-47-6	Xylenes (total)		5	U	
-		100-42-5	Styrene		5	U	
		75-25-2	Bromoform		5	U	

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			v	OLATILE	ORGA	1A NICS ANALY:	SIS DATA SHEET	EPA SAN	1PLE I
	Lob Nor	ne: EA LABO				Contract:		IR78-GW1	5-99A
	Lab Na	<del></del>	····	ase No.:		- SAS No.:		SDG No.:	
		(soil/water)		-		_ 0/10/100	Lab Sample ID		<b>.</b>
	Sample		5.0	– (g/mL)	ML			: VH8B9422	- .D
	Level:	(low/med)		_(9) _		_	Date Received		-
		ure: not dec.	0				Date Analyzed		-
		ımn: RTX 502.		- ID:	0.53	(mm)	Dilution Factor	· · · · · · · · · · · · · · · · · · ·	-
		ract Volume:		- <sup></sup> - (uL)		_()	Soil Aliquot Volume	t and the second se	- (uL)
	0011 2711	CAS No.	Compound	_		Concentrati (ug/L or ug/	on Units:	Q	- (42)
									ו
		79-34-5	1,1,2,2-Te	etrachioro	etnane		5	U	{
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EPA SAMPLE NO.

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			•••				IR78-GW08	-99A
	Lab Name:	EA LABOR	RATORIES		Contract:	990035		
	Lab Code:	EA ENG	_ Cas	se No.:	SAS No.:		SDG No.:	
	Matrix: (so	il/water)	WATER			Lab Sample ID:	#9900263	
	Sample wt/	/vol:	5.0	(g/mL) <u>ML</u>	_	Lab File ID:	VH8B9423.I	D
	Level: (lo	ow/med)				Date Received:	1/19/99	
	% Moisture	e: not dec.	0			Date Analyzed:	1/28/99	
	GC Colum	n: RTX 502.2	2	ID: 0.53	(mm)	Dilution Factor:	1.0	
	Soil Extrac	t Volume:		(uL)	-	Soil Aliquot Volume:		(uL)
					Concentrati	on Units:		
	C	AS No.	Compound		(ug/L or ug/		Q	
		10 110.	Compound		(09/2 01 09/			
	74	-87-3	Chlorometh	nane		5	U	
	75	5-01-4	Vinyl Chlori			5	U	
	74	-83-9	Bromometh			5	U	
	75	5-00-3	Chloroetha	ne		5	U	
	67	<b>'-64-1</b>	Acetone			10	U	
		5-35-4	1,1-Dichlor			5	U	
		5-09-2	Methylene			5	U	
		5-15-0	Carbon Dis			5	U	
		56-59-2		nloroethene		5	U	
$\frown$		56-60-5		ichloroethene		5	U	
		5-34-3	1,1-Dichlor			5	U	
		3-93-3	2-Butanone			10	U	
		7-66-3	Chloroform			5	U	
		-55-6	1,1,1-Trich			5	U	
		5-23-5	Carbon Tel			5	U	
		07-06-2	1,2-Dichlor	oethane		5	U	
		-43-2	Benzene	·····.		5	U	
		9-01-6	Trichloroet			5		
đ.,		3-87-5	1,2-Dichlor			5	<u>U</u>	
Ť		5-27-4		loromethane		5		
		08-10-1		Pentanone		10		ł
		061-01-5		hloropropene		5		
		08-88-3	Toluene			<u> </u>		
		0061-02-6		lichloropropene		<u> </u>		{
		9-00-5	1,1,2-Trich			<u>5</u>		•
		91-78-6	2-Hexanon Tetrachloro			5	U ·	4
		27-18-4				5	U U	4
		24-48-1		omomethane		5		{
		08-90-7	Chlorobenz			5		4
		00-41-4	Ethylbenze			5		4
**==,		5-47-6 00-42-5	Xylenes (to	nai)		5		ł
<i>.</i> `		5-25-2	Styrene Bromoform			5	U U	{
	1/5	2-23-2		l		<u> </u>	<u> </u>	J

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name	: EA LABOF	RATORIES			_ Contract:	990035		
Lab Code:	EA ENG	_ c	ase No.: _		SAS No.:		SDG No.:	
Matrix: (se	oil/water)	WATER				Lab Sample II	D: <u>#9900263</u>	-
Sample wt	/vol:	5.0	_(g/mL) _	ML	_	Lab File II	): VH8B9423.	D
Level: (I	ow/med)					Date Received	d: 1/19/99	-
% Moistur	e: not dec.	0				Date Analyze	d: <u>1/28/99</u>	-
GC Colum	n: <u>RTX 502.2</u>	•	ID:	0.53	_(mm)	Dilution Factor	r: <u>1.0</u>	_
Soil Extrac	t Volume:		_(uL)			Soil Aliquot Volume	e:	(uL
С	AS No.	Compoun	d		Concentrat (ug/L or ug		Q	
79	9-34-5	1,1,2,2-Te	etrachloro	ethane		5	U	]
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EPA SAMPLE NO.

	Lab Nam	ie: EA LABOF	ATORIES	Contract: 990035	IR78-GW21-99A
	Lab Code	e: EA ENG	Case No.:	SAS No.:	SDG No.:
	Matrix: (	soil/water)	WATER	Lab Sample IE	: #9900264
	Sample v	wt/vol:	5.0(g/mL)ML	Lab File IC	: <u>VH8B9424.</u> D
	Level:	(low/med)		Date Received	l:1/19/99
	% Moistu	ire: not dec.	0	Date Analyzed	1/28/99
	GC Colu	mn: <u>RTX 502.2</u>	ID: 0.53	(mm) Dilution Factor	:1.0
	Soil Extra	act Volume:	(uL)	Soil Aliquot Volume	:: (uL)
		CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
	[	74-87-3	Chloromethane	5	U
		75-01-4	Vinyl Chloride	5	U
	Ì	74-83-9	Bromomethane	5	U
		75-00-3	Chloroethane	5	U
		67-64-1	Acetone	10	U
		75-35-4	1,1-Dichloroethene	5	U
		75-09-2	Methylene Chloride	5	U
		75-15-0	Carbon Disulfide	5	U
		156-59-2	cis-1,2-Dichloroethene	5	U
~		156-60-5	trans-1,2-Dichloroethene	5	U
		75-34-3	1,1-Dichloroethane	5	U
		78-93-3	2-Butanone	10	U
		67-66-3	Chloroform	5	U
		71-55-6	1,1,1-Trichloroethane	5	U
		56-23-5	Carbon Tetrachloride	5	U
•		107-06-2	1,2-Dichloroethane	5	U
		71-43-2	Benzene	5	U
		79-01-6	Trichloroethene	5	U
		78-87-5	1,2-Dichloropropane	5	U
¥.		75-27-4	Bromodichloromethane	5	U
i		108-10-1	4-Methyl-2-Pentanone	10	U
•		10061-01-5	cis-1,3-Dichloropropene	5	U
		108-88-3	Toluene	5	U
		10061-02-6	trans-1,3-Dichloropropene	5	U
		79-00-5	1,1,2-Trichloroethane	5	U .
		591-78-6	2-Hexanone	10	U
	•	127-18-4	Tetrachloroethene	. 0.9	J
		124-48-1	Chlorodibromomethane	5	υ
		108-90-7	Chlorobenzene	5	U
		100-41-4	Ethylbenzene	5	U
:		95-47-6	Xylenes (total)	5	U
<b>~</b> .		100-42-5	Styrene	5	U
		75-25-2	Bromoform	5	U

1A	EPA SAMPLE NO.
VOLATILE ORGANICS ANALYSIS DATA SHEET	
	1878-GW21-00A

Lab Name: EA LAB	ORATORIES		Contract:		IR78-GW21-9	99A
Lab Code: EA ENG	Cas	e No.:	SAS No.:		SDG No.:	
Matrix: (soil/water)	WATER			Lab Sample ID:	#9900264	•
Sample wt/vol:	5.0(	g/mL)M	1L	Lab File ID:	VH8B9424.D	
Level: (low/med)				Date Received:	1/19/99	
% Moisture: not dec				Date Analyzed:	1/28/99	
GC Column: <u>RTX 502</u>	2.2	ID:	53 (mm)	Dilution Factor:	1.0	
Soil Extract Volume:	(	uL)		Soil Aliquot Volume:		(uL)

Concentration Units:	
(uall or ualka)	

	CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q	
	79-34-5	1,1,2,2-Tetrachloroethane		5	U	
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EPA SAMPLE NO.

		VOLATILE ORGAN	IICS ANALYSIS			
Lab Nan	ne: <u>EA LABOF</u>	ATORIES	Contract: 99		IR78-GW17-	99A
Lab Cod	ie: <u>EA ENG</u>	Case No.:	SAS No.:		SDG No.:	
Matrix:	(soil/water)	WATER		Lab Sample ID:	#9900265	
Sample	wt/vol:	5.0(g/mL)ML	-	Lab File ID:	VH8B9427.C	)
Level:	(low/med)			Date Received:	1/19/99	
% Moist	ure: not dec.	0		Date Analyzed:	1/28/99	
GC Colu	umn: <u>RTX 502.2</u>	ID: 0.53	(mm)	Dilution Factor:	1.0	
Soil Ext	ract Volume:	(uL)	Soi	il Aliquot Volume:		(uL)
			Concentration L	Jnits:		
	CAS No.	Compound	(ug/L or ug/Kg)		Q	
	74-87-3	Chloromethane		5	U	
	75-01-4	Vinyl Chloride		5	U	
	74-83-9	Bromomethane		5	U	
	75-00-3	Chloroethane		5	U	
	67-64-1	Acetone		10	U	
	75-35-4	1,1-Dichloroethene		5	U	
	75-09-2	Methylene Chloride		5	U	
	75-15-0	Carbon Disulfide		5	U	
	156-59-2	cis-1,2-Dichloroethene		5	U	
	156-60-5	trans-1,2-Dichloroethene		5	U	
	75-34-3	1,1-Dichloroethane		5	U	
	78-93-3	2-Butanone		10	U	
	67-66-3	Chloroform		5	U	
	71-55-6	1,1,1-Trichloroethane		5	U	
	56-23-5	Carbon Tetrachloride		5	U	
	107-06-2	1,2-Dichloroethane		5	U	
	71-43-2	Benzene		5	U	
	79-01-6	Trichloroethene		5	U	
	78-87-5	1,2-Dichloropropane		5	υ	
	75-27-4	Bromodichloromethane		5	U	
	108-10-1	4-Methyl-2-Pentanone		10	U	:
	10061-01-5	cis-1,3-Dichloropropene		5	U	
	108-88-3	Toluene		5	U	
	10061-02-6	trans-1,3-Dichloropropene		5	U	
	79-00-5	1,1,2-Trichloroethane		5	U	•
	591-78-6	2-Hexanone		10	U	
	127-18-4	Tetrachloroethene		5	U	
	124-48-1	Chlorodibromomethane		5	U	
	108-90-7	Chlorobenzene		5	U	
	100-41-4	Ethylbenzene		5	U	
	95-47-6	Xylenes (total)		5	U	
	100-42-5	Styrene		5	U	(
	75-25-2	Bromoform		5	U	ļ
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Page 1 of 2

EPA SAMPLE NO.

		NICS ANALYSIS DATA SHEET	IR78-GW17-99A
Lab Name: <u>EA LABO</u>	RATORIES	Contract: 990036	
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sample ID	: #9900265
Sample wt/vol:	5.0(g/mL)ML	_ Lab File ID	: VH8B9427.D
Level: (low/med)		Date Received	: 1/19/99
% Moisture: not dec.	0	Date Analyzed	: 1/28/99
GC Column: <u>RTX 502.</u>	2 ID:0.53	(mm) Dilution Factor	: 1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume	: (uL)
		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg)ug/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U
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EPA SAMPLE NO.

			V	OLATILE	ORGAI	NICS ANALYS	SIS DATA SHEET		
	Lab Nam	e: <u>EA LABOF</u>	ATORIES			Contract:	990035	IR78-GW091	JW-99A
_	Lab Code	e: EA ENG		ase No.:		SAS No.:	<u></u>	SDG No.:	
	Matrix: (	soil/water)	WATER	_			Lab Sample ID:	#9900248	
	Sample v	vt/vol:	5.0	_(g/mL) _	ML	_	Lab File ID:	VH8B9389.0	2
	Level:	(low/med)	<u> </u>	_			Date Received:	. 1/19/99	
	% Moistu	ire: not dec.	0				Date Analyzed:	: 1/26/99	
	GC Colu	mn: <u>RTX 502.2</u>		ID:	0.53	_(mm)	Dilution Factor:	1.0	
	Soil Extra	act Volume:		_(uL)			Soil Aliquot Volume:		(uL)
						Concentratio	on Units:		
	(	CAS No.	Compoun	d		(ug/L or ug/l	Kg) <u>ug/L</u>	Q	
	F	74-87-3	Chlorome	thane			5		
	-	75-01-4	Vinyl Chlo	oride			5	U	
	1	74-83-9	Bromome	thane			5	U	
	-	75-00-3	Chloroeth	ane			5	U	
		67-64-1	Acetone				10	U	
		75-35-4	1,1-Dichlo	proethene			5	U	
	ŀ	75-09-2	Methylen	e Chloride			5	U	
		75-15-0	Carbon D	isulfide			5	U	
	ļ	156-59-2	cis-1,2-Di	chloroethe	ne		5	U	
		156-60-5	trans-1,2-	Dichloroet	hene		5	U	
		75-34-3	1,1-Dichle	oroethane			5	U	
		78-93-3	2-Butanoi	ne			10	U	
		67-66-3	Chlorofor	m			5	U	
	ſ	71-55-6	1,1,1-Tric	hloroethan	ie		5	U	
		56-23-5	Carbon T	etrachlorid	e		5	<u> </u>	
		107-06-2	1,2-Dichlo	proethane			5	U	
		71-43-2	Benzene				5	U	
	L .	79-01-6	Trichloroe				5	U	
		78-87-5		propropane			5	U	
₿°		75-27-4		hlorometh			5	U	
	.	108-10-1		2-Pentano			10	U	
		10061-01-5		ichloroprop	ene		5	U	
		108-88-3	Toluene				5	U	
		10061-02-6	<u> </u>	Dichloropr			5	U	
		79-00-5		hloroethar	1e		5	U	•
		591-78-6	2-Hexand				10	U	
	ļ	127-18-4	Tetrachlo				· 5	UU	
		124-48-1		promometh	ane		5	U U	
		108-90-7	Chlorobe				<u>5</u> 5		
	5	100-41-4	Ethylbenz				5		
· · · · · · · · · · · · · · · · · · ·		95-47-6	Xylenes (	(iotal)			5		4
		100-42-5	Styrene				5		ł
· · · ·		75-25-2	Bromofor	m			<u> </u>		J

		1A NICS ANALYSIS DATA SHEET	EPA SAMPLE NO.
Lab Name: EA LA		Contract: 990035	IR78-GW09DW-99A
Lab Code: EA El		SAS No.:	SDG No.:
Matrix: (soil/water)		Lab Sample II	
Sample wt/vol:	 5.0(g/mL) ML		D: VH8B9389.D
Level: (low/med)		– Date Receive	
% Moisture: not d		Date Analyze	
GC Column: RTX 5		(mm) Dilution Facto	
Soil Extract Volum		Soil Aliquot Volum	
CAS No. 79-34-5	Compound 1,1,2,2-Tetrachloroethane	Concentration Units: (ug/L or ug/Kg) ug/L 5	Q
/ <del>9-34-5</del>	T, T, Z, Z-Tetrachioroethane	S	
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## 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

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IR78-GW09IW-99A

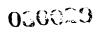
EPA SAMPLE NO.

Lab Name: EA LABOR	ATORIES			_ Contract:	990036	
Lab Code: EA ENG	Ca	se No.:		SAS No.:		SDG No.:
Matrix: (soil/water)	WATER	-			Lab Sample ID:	#9900266
Sample wt/vol:	5.0	(g/mL)	ML	_	Lab File ID:	VH8B9428.D
Level: (low/med)		_			Date Received:	1/19/99
% Moisture: not dec.	0	_			Date Analyzed:	1/28/99
GC Column: RTX 502.2		ID:	0.53	_(mm)	Dilution Factor:	1.0
Soil Extract Volume:		_(uL)			Soil Aliquot Volume:	(uL)

### **Concentration Units:**

CAS No.	Compound	(ug/L or ug/Kg)ug/L	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-59-2	cis-1,2-Dichloroethene	10	
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Chlorodibromomethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
95-47-6	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

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# 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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		Casa Na					
	ode: <u>EA ENG</u>	_ Case No.		_ SAS No.: _		SDG No.:	
	:: (soil/water)	WATER			Lab Sample I		-
Samp	le wt/vol:	(g/mL)	ML	-	Lab File II	D: VH8B9428.	D
Level:	(low/med)				Date Receive	d: <u>1/19/99</u>	
% Moi	isture: not dec.	0			Date Analyze	d: <u>1/28/99</u>	
GC Co	olumn: RTX 502.	2 ID	: 0.53	_(mm)	Dilution Facto	r: <u>1.0</u>	•
Soil E	xtract Volume:	(uL)		So	oil Aliquot Volume	e:	(uL)
	CAS No.	Compound		Concentration (ug/L or ug/Kg		Q	
	79-34-5	1,1,2,2-Tetrachlor	roethane		5	U	1
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FORM I VOA

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EPA SAMPLE NO.

	VOLATILE ORGANIC	S ANALYSIS DATA SHEET	
Lab Name: EA LABOF	_	Contract: <u>990036</u>	IR78-GW09-99A
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sample ID:	#9900267
Sample wt/vol:	5.0 (g/mL)NL	Lab File ID:	VH8B9429.D
Level: (low/med)		Date Received:	1/19/99
% Moisture: not dec.	0	Date Analyzed:	1/28/99
GC Column: RTX 502.2	2 ID: <u>0.53 (</u> n	nm) Dilution Factor:	1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume:	(uL)
CAS No.		Concentration Units: ug/L or ug/Kg)ug/L	Q
74.07.0			<u> </u>
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	55	
74-83-9	Bromomethane Chloroethane	5	
75-00-3 67-64-1	Acetone	10	
75-35-4	1,1-Dichloroethene	52	
75-09-2	Methylene Chloride	5	
75-15-0	Carbon Disulfide	5	
156-59-2	cis-1,2-Dichloroethene	38	
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	50	<u>+−−−−−</u>
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	300	E
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	130	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	<u> </u>
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Chlorodibromomethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
95-47-6	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

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FORM I VOA

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	1/ VOLATILE ORGANIC		EPA SAM	IPLE NC
Lab Name: EA LABORATOR		Contract: 990036	IR78-GW09	999A
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water) WAT		Lab	Sample ID: #9900267	
Sample wt/vol: 5.	0 (g/mL) ML	l	.ab File ID: VH8B9429.	D
Level: (low/med)		Date	Received: 1/19/99	-
% Moisture: not dec. 0	)	Date	Analyzed: 1/28/99	_
GC Column: RTX 502.2	ID: 0.53 (r	nm) Dilut	ion Factor: <u>1.0</u>	-
Soil Extract Volume:	(uL)	Soil Aliqu	ot Volume:	(uL)
CAS No. Comp		Concentration Units: ug/L or ug/Kg)	ug/L Q	
· · ·	2-Tetrachloroethane	5		1
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### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

		VC	DLATILE	ORGANI	CS ANALYS	SIS DA	TA SHEET	IR78-GW09	-99401
Lab Nam	e: EA LABOR	ATORIES			Contract:	9900			
Lab Code	e: <u>EA ENG</u>	. Ca	se No.:		SAS No.:			SDG No.:	<u> </u>
Matrix: (	soil/water)	WATER				L	ab Sample ID:	#9900267DI	-
Sample v	wt/vol:	5.0	(g/mL) _	ML			Lab File ID:	VH8B9500.I	)
Level:	(low/med)					[	Date Received:	1/19/99	
% Moistu	ure: not dec.	0				[	Date Analyzed:	2/3/99	
GC Colu	mn: <u>RTX 502.2</u>		ID:	0.53 (I	mm)	[	Dilution Factor:	5.0	
Soil Extra	act Volume:		(uL)			Soil A	liquot Volume:		(uL)
				(	Concentrati	on Uni	its:		
1	CAS No.	Compound	i	(	(ug/L or ug/	′Kg)	ug/L	Q	
F	74-87-3	Chloromet	hane				25	U	
	75-01-4	Vinyl Chlo	ride				25	U	
	74-83-9	Bromomet	hane				25	U	
	75-00-3	Chloroetha	ine				25	U	
	67-64-1	Acetone					50	U	
	75-35-4	1,1-Dichlo	roethene				32	D	
	75-09-2	Methylene	Chloride	)			25	U	
	75-15-0	Carbon Di	sulfide				25	U	
	156-59-2	cis-1,2-Dic	hloroethe	ene			30	D	
	156-60-5	trans-1,2-[	Dichloroe	thene			25	U	
	75-34-3	1,1-Dichlo	roethane				40	D	
	78-93-3	2-Butanon	e				50	U	
	67-66-3	Chloroforn	า				25	U	
	71-55-6	1,1,1-Trich	loroetha	ne		2	230	D	
	56-23-5	Carbon Te	trachlorid	de			25	U	
	107-06-2	1,2-Dichlo	roethane				25	U	
	71-43-2	Benzene					25	υ	
	79-01-6	Trichloroe				1	00	D	
	78-87-5	1,2-Dichlo					25	U	
	75-27-4	Bromodich	<u> </u>				25	U	:
	108-10-1	4-Methyl-2					50	U	
	10061-01-5	cis-1,3-Dic	hloropro	pene			25	U	
	108-88-3	Toluene					25	U	
	10061-02-6	trans-1,3-I					25	U	
	79-00-5	1,1,2-Trich		ne			25	U	•
	591-78-6	2-Hexanor	าย				50	U	
	127-18-4	Tetrachlor					25	U	
	124-48-1	Chlorodibr	omometi	nane			25	U	
l	108-90-7	Chloroben					25	U	
	100-41-4	Ethylbenz					25	U	ļ
	95-47-6	Xylenes (t	otal)				25	U	
	100-42-5	Styrene					25	U	1
	75-25-2	Bromoform	n				25	U	

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FORM I VOA

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VOLATILE ORGANICS ANALYSIS DATA SHEET           Lab Name:         EA LABORATORIES         Contract:         990036           Lab Code:         EA ENG         Case No.:         SAS No.:         SDG No.:           Matrix:         (soil/water)         WATER         Lab Sample ID: #9900267DL           Sample wt/vol:         5.0         (g/mL)         ML         Lab Simple ID: #9900267DL           Sample wt/vol:         5.0         (g/mL)         ML         Lab File ID: VH8B9500.D           Level:         (low/med)          Date Received:         1/19/99           % Moisture:         not dec.         0         Date Analyzed:         2/3/99           GC Column:         RTX 502.2         ID:         0.53         (mm)         Dilution Factor:         5.0           Soil Extract Volume:
Matrix: (soil/water)       WATER       Lab Sample ID: #9900267DL         Sample wt/vol:       5.0       (g/mL)       ML       Lab File ID: VH8B9500.D         Level:       (low/med)       Date Received:       1/19/99         % Moisture:       not dec.       0       Date Analyzed:       2/3/99         GC Column:       RTX 502.2       ID:       0.53 (mm)       Dilution Factor:       5.0         Soil Extract Volume:
Sample wt/vol:       5.0 (g/mL) ML       Lab File ID: VH8B9500.D         Level:       (low/med)       Date Received:       1/19/99         % Moisture:       not dec.       0       Date Analyzed:       2/3/99         GC Column:       RTX 502.2       ID:       0.53 (mm)       Dilution Factor:       5.0         Soil Extract Volume:      (uL)       Soil Aliquot Volume:      (uL)         CAS No.       Compound       (ug/L or ug/Kg)       ug/L       Q
Level:       (low/med)          % Moisture:       not dec.       0       Date Received:       1/19/99         % Moisture:       not dec.       0       Date Analyzed:       2/3/99         GC Column:       RTX 502.2       ID:       0.53 (mm)       Dilution Factor:       5.0         Soil Extract Volume:      (uL)       Soil Aliquot Volume:      (uL)         Concentration Units:       Concentration Units:       Q
% Moisture: not dec.       0       Date Analyzed: 2/3/99         GC Column: RTX 502.2       ID: 0.53 (mm)       Dilution Factor: 5.0         Soil Extract Volume:       (uL)       Soil Aliquot Volume:       (uL)         CAS No.       Compound       (ug/L or ug/Kg)       ug/L       Q
GC Column: RTX 502.2       ID: 0.53 (mm)       Dilution Factor: 5.0         Soil Extract Volume:
Soil Extract Volume:      (uL)       Soil Aliquot Volume:      (uL)         Concentration Units:      (ug/L or ug/Kg)      Q
Concentration Units: CAS No. Compound (ug/L or ug/Kg) ug/L Q
CAS No. Compound (ug/L or ug/Kg)ug/L Q
79-34-5     1,1,2,2-Tetrachloroethane     25     U
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## 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

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EPA SAMPLE NO.

Lab Code:         EA ENG         Case No.:         SAS No.:         SDG No.:           Matrix:         (soll/water)         WATER         Lab Sample ID: #9900268           Sample wt/vol:         5.0         (g/mL)         ML         Lab Sample ID: #9900268           Level:         (low/med)	Lab Name: EA LABOR	ATORIES	Contract: 990036	IR78-GW11-99A
Sample wt/vol:         5.0         (g/mL)         ML         Lab File ID: VH989430.D           Level:         (low/med)         Date Received:         1/19/99           % Moisture:         not dec.         0         Date Analyzed:         1/28/99           GC Column: RTX 502.2         ID:         0.53         (mm)         Dilution Factor:         1.0           Soil Extract Volume:				SDG No.:
Level:         (low/med)         Date Received:         1/19/99           % Moisture:         not dec.	Matrix: (soil/water)	WATER	Lab Sample ID:	#9900268
% Moisture:         not dec.         0         Date Analyzed:         1/28/99           GC Column:         RTX 502.2         ID:         0.53         (mm)         Dilution Factor:         1.0           Soil Extract Volume:         (uL)         Soil Aliquot Volume:         (uL)           Concentration Units:         Concentration Units:         Q           74-87-3         Chloromethane         5         U           75-01-4         Vinyl Chloride         5         U           76-01-4         Vinyl Chloride         5         U           76-01-4         Ontorethane         5         U           76-01-4         Vinyl Chloride         5         U           76-02-2         Methylene Chloride         5         U           76-03-2         Methylene Chloride         5         U           76-04-2         Methylene Chloride         5         U           76-05-2         Methylene Chloride         5         U           76-05-3         Chloroothene         5         U           76-05-4         Trans-1.2-Dichloroethene         5         U           76-34-3         1,1-Dichloroethane         5         U           76-62         1,2-Dichlor	Sample wt/vol:		Lab File ID:	VH8B9430.D
GC Column: RTX 502.2       ID: 0.53 (mm)       Dilution Factor: 1.0         Soil Extract Volume:       (uL)       Soil Aliquot Volume:       (uL)         Concentration Units:         74-87-3       Chloromethane       5       U         74-87-3       Chloromethane       5       U         74-87-3       Chloromethane       5       U         75-01-4       Vinyl Chloride       5       U         75-03       Chloroethane       5       U         75-04-2       Methylene Chloride       5       U         75-05-2       cis-1,2-Dichloroethene       5       U         156-60-5       trans-1,2-Dichloroethene       5       U         76-9-2       Methylene Chloride       5       U         76-9-3       2-Butanone       10       U         67-66-3       Chlorootrm       5       U         71-65-2       1,1-Trichloroethane       5       U         71-65-3	Level: (low/med)		Date Received:	1/19/99
Soil Extract Volume:         (uL)         Soil Aliquot Volume:         (uL)           Concentration Units:           CAS No.         Compound         (ug/L or ug/Kg)         ug/L         Q           74-87-3         Chioromethane         5         U         74-87-3         Chioromethane         5         U           75-01-4         Vinyl Chioroethane         5         U         75-00-3         Chioroethane         5         U           75-00-3         Chioroethane         5         U         75-00-3         Chioroethane         5         U           75-03-3         Chioroethene         5         U         75-05-2         U         75-05-2         U         75-15-0         Caton Disulfide         5         U         175-15-0         Caton Disulfide         5         U         175-15-0         Caton Disulfide         5         U         175-34-3         1,1-Dichloroethane         5         U         175-66-3         L         175-66-3         U         175-66-3         U         175-66-3         U         175-66-3         U         171-43-2         Benzene         5         U         171-43-2         Benzene         5         U         174-32-3         Benzene         5         U <td>% Moisture: not dec.</td> <td>0</td> <td>Date Analyzed:</td> <td>1/28/99</td>	% Moisture: not dec.	0	Date Analyzed:	1/28/99
Concentration Units:         Concentration Units:           (ug/L or ug/Kg)         ug/L         Q           74-87-3         Chloromethane         5         U           75-01-4         Vinyl Chloride         5         U           75-01-3         Chloromethane         5         U           75-00-3         Chloroethane         10         U           67-64-1         Acetone         10         U           75-35-4         1,1-Dichloroethene         5         U           75-09-2         Methylene Chloride         5         U           75-15-0         Carbon Disulfide         5         U           156-60-5         trans-1,2-Dichloroethane         5         U           156-60-5         trans-1,2-Dichloroethane         5         U           75-34-3         1,1-Dichloroethane         5         U           76-63         Chloroform         5         U           71-55-6         1,1,1-Trichoroethane         5         U           71-43-2         Benzene         5         U           71-43-2         Benzene         5         U           72-74         Bromodichloromethane         5         U	GC Column: <u>RTX 502.2</u>	ID: <u>0.53</u> (r	nm) Dilution Factor:	1.0
CAS No.         Compound         (ug/L or ug/Kg)         ug/L         Q           74-87-3         Chloromethane         5         U           75-01-4         Vinyl Chloride         5         U           74-83-9         Bromomethane         5         U           75-00-3         Chloroethane         5         U           67-64-1         Acetone         10         U           75-03-2         Methylene Chloride         5         U           75-09-2         Methylene Chloride         5         U           75-15-0         Carbon Disulfide         5         U           75-09-2         Methylene Chloride         5         U           75-15-0         Carbon Disulfide         5         U           75-15-0         Carbon Disulfide         5         U           75-34-3         1,1-Dichloroethene         5         U           75-86-3         Chloroform         5         U           71-55-6         L1,1-Trichloroethane         5         U           76-62-3         Chloroform         5         U           79-01-6         Trichloroethene         5         U           79-01-6         Trichloroethene <td>Soil Extract Volume:</td> <td>(uL)</td> <td>Soil Aliquot Volume:</td> <td> (uL)</td>	Soil Extract Volume:	(uL)	Soil Aliquot Volume:	(uL)
75-01-4       Vinyl Chloride       5       U         74-83-9       Bromomethane       5       U         75-00-3       Chloroethane       5       U         67-64-1       Acetone       10       U         75-35-4       1,1-Dichloroethene       5       U         75-99-2       Methylene Chloride       5       U         75-10       Carbon Disulfide       5       U         75-10       Carbon Disulfide       5       U         156-50-2       cis-1,2-Dichloroethene       5       U         75-34-3       1,1-Dichloroethene       5       U         75-34-3       1,1-Dichloroethane       5       U         75-34-3       1,1-Dichloroethane       5       U         75-66-3       Chloroform       5       U         71-55-6       1,1,1-Trichloroethane       5       U         76-62-3       Carbon Tetrachloride       5       U         71-43-2       Benzene       5       U         75-27-4       Bromodichloromethane       5       U         76-87-5       1,2-Dichloropropene       5       U         108-10-1       4-Methyl-2-Pentanone       10	CAS No.			Q
74-83-9       Bromomethane       5       U         75-00-3       Chloroethane       5       U         87-64-1       Acetone       10       U         75-03-2       Nethylene Chloride       5       U         75-35-4       1,1-Dichloroethene       5       U         75-09-2       Methylene Chloride       5       U         75-15-0       Carbon Disulfide       5       U         156-60-5       trans-1,2-Dichloroethene       5       U         75-34-3       1,1-Dichloroethene       5       U         75-34-3       1,1-Dichloroethane       5       U         78-93-3       2-Butanone       10       U         67-66-3       Chloroform       5       U         71-55-6       1,1,1-Tichloroethane       5       U         107-06-2       1,2-Dichloroethane       5       U         107-06-2       1,2-Dichloroethane       5       U         79-01-6       Trichloroethene       5       U         78-87-5       1,2-Dichloropropane       5       U         108-10-1       4-Methyl-2-Pentanone       10       U         10061-01-5       is-1,3-Dichloropropene	74-87-3	Chloromethane	5	U
75-00-3       Chloroethane       5       U $67-64-1$ Acetone       10       U $75-35-4$ 1,1-Dichloroethene       5       U $75-09-2$ Methylene Chloride       5       U $75-09-2$ Methylene Chloride       5       U $75-09-2$ Cis-1,2-Dichloroethene       5       U $156-59-2$ cis-1,2-Dichloroethene       5       U $156-60-5$ trans-1,2-Dichloroethene       5       U $75-34-3$ 1,1-Dichloroethane       5       U $75-34-3$ 1,1-Dichloroethane       5       U $75-34-3$ 1,1-Trichloroethane       5       U $71-55-6$ 1,1,1-Trichloroethane       5       U $71-55-6$ 1,1,1-Trichloroethane       5       U $71-43-2$ Benzene       5       U $71-43-2$ Benzene       5       U $78-7-4$ Bromodichloromethane       5       U $78-27-4$ Bromodichloromethane       5       U $78-27-4$ Bromodichloromethane       5       U $108-83-5$	75-01-4	Vinyl Chloride	5	U
67.64.1       Acetone       10       U $75.35.4$ 1,1-Dichloroethene       5       U $75.09.2$ Methylene Chloride       5       U $75.15.0$ Carbon Disulfide       5       U $156.59.2$ cis-1,2-Dichloroethene       5       U $156.60.5$ trans-1,2-Dichloroethene       5       U $75.34.3$ 1,1-Dichloroethane       5       U $75.93.3$ 2-Butanone       10       U $67.66.3$ Chloroform       5       U $71.55.6$ 1,1,1-Trichloroethane       5       U $71.45.2$ Benzene       5       U $71.43.2$ Benzene       5       U $71.43.2$ Benzene       5       U $75.27.4$ Bromodichloromethane       5       U $75.27.4$ Bromodichloropropane       5       U $108.10.1$ 4-Methyl-2-Pentanone       10       U $108.88.3$ Toluene       5       U $10061.02.6$ trans-1,3-Dichloropropene       5       U $10.26.6$ trans-1,3-	74-83-9	Bromomethane	5	U
75-35-4       1,1-Dichloroethene       5       U         75-09-2       Methylene Chloride       5       U         75-15-0       Carbon Disulfide       5       U         156-59-2       cis-1,2-Dichloroethene       5       U         156-60-5       trans-1,2-Dichloroethene       5       U         75-34-3       1,1-Dichloroethane       5       U         78-93-3       2-Butanone       10       U         67-66-3       Chloroform       5       U         71-55-6       1,1,1-Trichloroethane       5       U         75-27-4       Bromodichloroethane       5       U         71-43-2       Benzene       5       U         75-27-4       Bromodichloromethane       5       U         75-27-4       Bromodichloromethane       5       U         108-10-1       4-Methyl-2-Pentanone       10       U         108-10-1       4-Methyl-2-Pentanone       5       U         10061-01-5       cis-1,3-Dichloropropene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         102-178	75-00-3	Chloroethane	5	U
75-09-2       Methylene Chloride       5       U         75-15-0       Carbon Disulfide       5       U         156-59-2       cis-1,2-Dichloroethene       5       U         156-60-5       trans-1,2-Dichloroethene       5       U         75-34-3       1,1-Dichloroethane       5       U         75-34-3       1,1-Dichloroethane       5       U         75-36-5       trans-1,2-Dichloroethane       5       U         75-66       1,1,1-Trichloroethane       5       U         71-55-6       1,1,1-Trichloroethane       5       U         71-55-6       1,1,1-Trichloroethane       5       U         71-55-6       1,1,1-Trichloroethane       5       U         71-43-2       Benzene       5       U         79-01-6       Trichloroethene       5       U         75-27-4       Bromodichloromethane       5       U         108-10-1       4-Methyl-2-Pentanone       10       U         10061-01-5       cis-1,3-Dichloropropene       5       U         108-88-3       Toluene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         100-5 <td>67-64-1</td> <td>Acetone</td> <td>10</td> <td>U</td>	67-64-1	Acetone	10	U
75-15-0       Carbon Disulfide       5       U         156-59-2       cis-1,2-Dichloroethene       5       U         156-60-5       trans-1,2-Dichloroethene       5       U         75-34-3       1,1-Dichloroethane       5       U         75-34-3       1,1-Dichloroethane       5       U         78-93-3       2-Butanone       10       U         67-66-3       Chloroform       5       U         71-55-6       1,1,1-Trichloroethane       5       U         56-23-5       Carbon Tetrachloride       5       U         107-06-2       1,2-Dichloroethane       5       U         71-43-2       Benzene       5       U         75-27-4       Bromodichloropropane       5       U         75-27-4       Bromodichloropropane       5       U         108-10-1       4-Methyl-2-Pentanone       10       U         10061-01-5       cis-1,3-Dichloropropene       5       U         108-88-3       Toluene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         1010-12-6       trans-1,3-Dichloropropene       5       U         10061-02-6	75-35-4	1,1-Dichloroethene		U
156-59-2cis-1,2-Dichloroethene5U156-60-5trans-1,2-Dichloroethene5U75-34-31,1-Dichloroethane5U78-93-32-Butanone10U67-66-3Chloroform5U71-55-61,1,1-Trichloroethane5U56-23-5Carbon Tetrachloride5U107-06-21,2-Dichloroethane5U71-43-2Benzene5U79-01-6Trichloroethane5U78-87-51,2-Dichloropropane5U78-87-51,2-Dichloropropane5U108-10-14-Methyl-2-Pentanone10U10061-01-5cis-1,3-Dichloropropene5U10061-02-6trans-1,3-Dichloropropene5U10061-02-6trans-1,3-Dichloropropene5U10061-02-6trans-1,3-Dichloropropene5U10061-02-6trans-1,3-Dichloropropene5U10061-02-6trans-1,3-Dichloropropene5U102-14-4Tetrachloroethane5U102-151,1,2-Trichloroethane5U102-16Tichloroethane5U102-171,1,2-Trichloroethane5U103-141,1,2-Trichloroethane5U104-14Tetrachloroethene5U102-151,1,2-Trichloroethene5U102-151,1,2-Trichloroethene5U103-141,1,2-Trichlor	75-09-2	Methylene Chloride		U
156-60-5trans-1,2-Dichloroethene5U75-34-31,1-Dichloroethane5U78-93-32-Butanone10U67-66-3Chloroform5U71-55-61,1,1-Trichloroethane5U56-23-5Carbon Tetrachloride5U107-06-21,2-Dichloroethane5U71-43-2Benzene5U79-01-6Trichloroethene5U78-87-51,2-Dichloropropane5U75-27-4Bromodichloromethane5U108-10-14-Methyl-2-Pentanone10U10061-01-5cis-1,3-Dichloropropene5U10061-02-6trans-1,3-Dichloropropene5U10061-02-6trans-1,3-Dichloropropene5U10061-02-6trans-1,3-Dichloropropene5U10127-18-4Tetrachloroethene5U1024-48-1Chlorodibromomethane5U1024-48-1Chlorodibromomethane5U100-41-4Ethylbenzene5U100-41-4Ethylbenzene5U100-42-5Styrene5U	75-15-0	Carbon Disulfide		
75-34-31,1-Dichloroethane5U $78-93-3$ 2-Butanone10U $67-66-3$ Chloroform5U $71-55-6$ 1,1,1-Trichloroethane5U $56-23-5$ Carbon Tetrachloride5U $107-06-2$ 1,2-Dichloroethane5U $71-43-2$ Benzene5U $79-01-6$ Trichloroethane5U $78-87-5$ 1,2-Dichloropropane5U $78-87-5$ 1,2-Dichloropropane5U $75-27-4$ Bromodichloromethane5U $108-10-1$ 4-Methyl-2-Pentanone10U $10061-01-5$ cis-1,3-Dichloropropene5U $10061-02-6$ trans-1,3-Dichloropropene5U $79-00-5$ 1,1,2-Trichloroethene5U $79-00-5$ 1,1,2-Trichloroethene5U $10061-02-6$ trans-1,3-Dichloropropene5U $10061-02-6$ trans-1,3-Dichloropropene5U $10061-02-6$ trans-1,3-Dichloropropene5U $100-51$ 1,1,2-Trichloroethene5U $127-18-6$ 2-Hexanone10U $127-18-4$ Tetrachloroethene5U $100-41-4$ Ethylbenzene5U $100-41-4$ Ethylbenzene5U $95-47-6$ Xylenes (total)5U $100-42-5$ Styrene5U	156-59-2	cis-1,2-Dichloroethene		
78.93.3       2-Butanone       10       U $67.66.3$ Chloroform       5       U $71.55.6$ 1,1,1-Trichloroethane       5       U $56.23.5$ Carbon Tetrachloride       5       U $107.06.2$ 1,2-Dichloroethane       5       U $107.06.2$ 1,2-Dichloroethane       5       U $71.43.2$ Benzene       5       U $79.01.6$ Trichloroethene       5       U $79.01.6$ Trichloropropane       5       U $75.27.4$ Bromodichloromethane       5       U $75.27.4$ Bromodichloropropene       5       U $108.10.1$ 4-Methyl-2-Pentanone       10       U $10061-01.5$ cis-1,3-Dichloropropene       5       U $10061-02.6$ trans-1,3-Dichloropropene       5       U $79.00.5$ 1,1,2-Trichloroethane       5       U $591-78.6$ 2-Hexanone       10       U $127-18.4$ Tetrachloroethene       5       U $108-90.7$ Chlorobenzene       5       U $10$	156-60-5			
67-66-3       Chloroform       5       U $71-55-6$ 1,1,1-Trichloroethane       5       U $56-23-5$ Carbon Tetrachloride       5       U $107-06-2$ 1,2-Dichloroethane       5       U $107-06-2$ 1,2-Dichloroethane       5       U $71-43-2$ Benzene       5       U $79-01-6$ Trichloroethene       5       U $78-87-5$ 1,2-Dichloropropane       5       U $75-27-4$ Bromodichloromethane       5       U $75-27-4$ Bromodichloropropene       5       U $108-10-1$ 4-Methyl-2-Pentanone       10       U $10061-01-5$ cis-1,3-Dichloropropene       5       U $10061-02-6$ trans-1,3-Dichloropropene       5       U $10061-02-6$ trans-1,3-Dichloropropene       5       U $591-78-6$ 2-Hexanone       10       U $127-18-4$ Tetrachloroethane       5       U $124-48-1$ Chlorodibromomethane       5       U $108-90-7$ Chlorobenzene       5       U				
71-55-61,1,1-Trichloroethane5U $56-23-5$ Carbon Tetrachloride5U $107-06-2$ 1,2-Dichloroethane5U $71-43-2$ Benzene5U $79-01-6$ Trichloroethene5U $78-87-5$ 1,2-Dichloropropane5U $75-27-4$ Bromodichloromethane5U $108-10-1$ 4-Methyl-2-Pentanone10U $10061-01-5$ cis-1,3-Dichloropropene5U $108-88-3$ Toluene5U $10061-02-6$ trans-1,3-Dichloropropene5U $591-78-6$ 2-Hexanone10U $127-18-4$ Tetrachloroethene5U $124-48-1$ Chlorodibromomethane5U $108-90-7$ Chlorobenzene5U $100-41-4$ Ethylbenzene5U $100-41-4$ Ethylbenzene5U $95-47-6$ Xylenes (total)5U $100-42-5$ Styrene5U				
56-23-5       Carbon Tetrachloride       5       U         107-06-2       1,2-Dichloroethane       5       U         71-43-2       Benzene       5       U         79-01-6       Trichloroethene       5       U         78-87-5       1,2-Dichloropropane       5       U         75-27-4       Bromodichloromethane       5       U         108-10-1       4-Methyl-2-Pentanone       10       U         10061-01-5       cis-1,3-Dichloropropene       5       U         108-88-3       Toluene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         101001-02-6       trans-1,3-Dichloropropene       5       U         1027-18-4       Tetrachloroethene       5       U         1027-18-4       Tetrachloroethene       5       U <td></td> <td></td> <td></td> <td></td>				
107-06-2       1,2-Dichloroethane       5       U         71-43-2       Benzene       5       U         79-01-6       Trichloroethene       5       U         78-87-5       1,2-Dichloropropane       5       U         75-27-4       Bromodichloromethane       5       U         75-27-4       Bromodichloromethane       5       U         108-10-1       4-Methyl-2-Pentanone       10       U         10061-01-5       cis-1,3-Dichloropropene       5       U         108-88-3       Toluene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         101061-02-6       trans-1,3-Dichloropropene       5       U         1027-18-4       Tetrachloroethene       5       U         127-18-4       Tetrachloroethene       5       U         108-90-7       Chlorobenzene       5       U				
71-43-2       Benzene       5       U         79-01-6       Trichloroethene       5       U         78-87-5       1,2-Dichloropropane       5       U         75-27-4       Bromodichloromethane       5       U         108-10-1       4-Methyl-2-Pentanone       10       U         108-10-1       4-Methyl-2-Pentanone       10       U         10061-01-5       cis-1,3-Dichloropropene       5       U         108-88-3       Toluene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         127-18-4       Tetrachloroethane       5       U         124-48-1       Chlorodibromomethane       5       U         108-90-7       Chlorobenzene       5       U         100-41-4       Ethylbenzene       5       U      <		the second s		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		and the second secon		
78-87-5       1,2-Dichloropropane       5       U         75-27-4       Bromodichloromethane       5       U         108-10-1       4-Methyl-2-Pentanone       10       U         10061-01-5       cis-1,3-Dichloropropene       5       U         108-88-3       Toluene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         79-00-5       1,1,2-Trichloroethane       5       U         591-78-6       2-Hexanone       10       U         127-18-4       Tetrachloroethene       5       U         124-48-1       Chlorodibromomethane       5       U         108-90-7       Chlorobenzene       5       U         100-41-4       Ethylbenzene       5       U         95-47-6       Xylenes (total)       5       U         100-42-5       Styrene       5       U				
75-27-4       Bromodichloromethane       5       U         108-10-1       4-Methyl-2-Pentanone       10       U         10061-01-5       cis-1,3-Dichloropropene       5       U         108-88-3       Toluene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         79-00-5       1,1,2-Trichloroethane       5       U         591-78-6       2-Hexanone       10       U         127-18-4       Tetrachloroethene       5       U         124-48-1       Chlorodibromomethane       5       U         108-90-7       Chlorobenzene       5       U         100-41-4       Ethylbenzene       5       U         95-47-6       Xylenes (total)       5       U         100-42-5       Styrene       5       U				
108-10-1       4-Methyl-2-Pentanone       10       U         10061-01-5       cis-1,3-Dichloropropene       5       U         108-88-3       Toluene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         79-00-5       1,1,2-Trichloroethane       5       U         591-78-6       2-Hexanone       10       U         127-18-4       Tetrachloroethene       5       U         124-48-1       Chlorodibromomethane       5       U         108-90-7       Chlorobenzene       5       U         100-41-4       Ethylbenzene       5       U         95-47-6       Xylenes (total)       5       U         100-42-5       Styrene       5       U				
10061-01-5       cis-1,3-Dichloropropene       5       U         108-88-3       Toluene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         79-00-5       1,1,2-Trichloroethane       5       U         591-78-6       2-Hexanone       10       U         127-18-4       Tetrachloroethene       5       U         124-48-1       Chlorodibromornethane       5       U         108-90-7       Chlorobenzene       5       U         100-41-4       Ethylbenzene       5       U         95-47-6       Xylenes (total)       5       U         100-42-5       Styrene       5       U				
108-88-3       Toluene       5       U         10061-02-6       trans-1,3-Dichloropropene       5       U         79-00-5       1,1,2-Trichloroethane       5       U         591-78-6       2-Hexanone       10       U         127-18-4       Tetrachloroethene       5       U         124-48-1       Chlorodibromomethane       5       U         108-90-7       Chlorobenzene       5       U         100-41-4       Ethylbenzene       5       U         95-47-6       Xylenes (total)       5       U         100-42-5       Styrene       5       U		and the second		
10061-02-6       trans-1,3-Dichloropropene       5       U         79-00-5       1,1,2-Trichloroethane       5       U         591-78-6       2-Hexanone       10       U         127-18-4       Tetrachloroethene       5       U         124-48-1       Chlorodibromomethane       5       U         108-90-7       Chlorobenzene       5       U         100-41-4       Ethylbenzene       5       U         95-47-6       Xylenes (total)       5       U         100-42-5       Styrene       5       U				
79-00-5       1,1,2-Trichloroethane       5       U         591-78-6       2-Hexanone       10       U         127-18-4       Tetrachloroethene       5       U         124-48-1       Chlorodibromomethane       5       U         108-90-7       Chlorobenzene       5       U         100-41-4       Ethylbenzene       5       U         95-47-6       Xylenes (total)       5       U         100-42-5       Styrene       5       U				
591-78-6       2-Hexanone       10       U         127-18-4       Tetrachloroethene       5       U         124-48-1       Chlorodibromomethane       5       U         108-90-7       Chlorobenzene       5       U         100-41-4       Ethylbenzene       5       U         95-47-6       Xylenes (total)       5       U         100-42-5       Styrene       5       U				
127-18-4Tetrachloroethene5U124-48-1Chlorodibromomethane5U108-90-7Chlorobenzene5U100-41-4Ethylbenzene5U95-47-6Xylenes (total)5U100-42-5Styrene5U				
124-48-1       Chlorodibromomethane       5       U         108-90-7       Chlorobenzene       5       U         100-41-4       Ethylbenzene       5       U         95-47-6       Xylenes (total)       5       U         100-42-5       Styrene       5       U				
108-90-7         Chlorobenzene         5         U           100-41-4         Ethylbenzene         5         U           95-47-6         Xylenes (total)         5         U           100-42-5         Styrene         5         U		and the second		
100-41-4         Ethylbenzene         5         U           95-47-6         Xylenes (total)         5         U           100-42-5         Styrene         5         U				
95-47-6         Xylenes (total)         5         U           100-42-5         Styrene         5         U				
100-42-5 Styrene 5 U				
	75-25-2	Bromoform	5	U

	VOLATILE ORGA	1A ANICS ANALYSIS DATA SHEET	EPA SAMPLE NO.
Lab Name: EA LABOI	RATORIES	Contract: 990036	IR78-GW11-99A
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sample ID	#9900268
Sample wt/vol:		Lab File ID	VH8B9430.D
Level: (low/med)		Date Received	1/19/99
% Moisture: not dec.	0	Date Analyzed	1/28/99
GC Column: RTX 502.2	2 ID: <u>0.53</u>	(mm) Dilution Factor:	1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume	(uL)
		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg)	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U
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### 1A OLATILE ORGANICS ANALYSIS DATA SHEET

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EPA SAMPLE NO.

	VOLATILE ORGANIC	CS ANALYSIS DATA SHEET	
Lab Name: EA LABOR	ATORIES	Contract: 990036	IR78-GW42-99A
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sample ID:	#9900269
Sample wt/vol:	5.0 (g/mL) <u>ML</u>	Lab File ID:	VH8B9431.D
Level: (low/med)		Date Received:	1/19/99
% Moisture: not dec.	0	Date Analyzed:	1/28/99
GC Column: RTX 502.2	ID: 0.53 (	mm) Dilution Factor:	1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume:	(uL)
			· · · · · · · · · · · · · · · · · · ·
CAC No		Concentration Units:	Q
CAS No.	Compound	(ug/L or ug/Kg)ug/L	<b>u</b>
74-87-3	Chloromethane	5	
75-01-4	Vinyl Chloride	6	
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-59-2	cis-1,2-Dichloroethene	27	
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	9	
78-93-3	2-Butanone	10	Ŭ
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	17	<u></u>
7 <b>8-87-</b> 5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U .
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	Ū
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U.
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	Ū
124-48-1	Chlorodibromomethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
95-47-6	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

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		1A NICS ANALYSIS DATA SHEET	EPA SAMPLE NO.
Lab Name: EA LABO			IR78-GW42-99A
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Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sample ID:	
Sample wt/vol:	<u>    5.0    (g/mL)     ML    </u>	_ Lab File ID:	VH8B9431.D
Level: (low/med)		Date Received:	1/19/99
% Moisture: not dec.	0	Date Analyzed:	1/28/99
GC Column: RTX 502.2	2 ID: 0.53	_(mm) Dilution Factor:	1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume:	(uL)
		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U
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## 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

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EPA SAMPLE NO.

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1 - h 1 - ·			Contract: 990036	R78-GW04-99A
Lad Nam	e: <u>EA LABOR</u>			
Lab Cod	e: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (	soil/water)	WATER	Lab Sample ID:	#9900270
Sample	wt/vol:	5.0(g/mL)ML	Lab File ID:	VH8B9432.D
Level:	(low/med)		Date Received:	1/19/99
% Moistu	ure: not dec.	0	Date Analyzed:	1/28/99
GC Colu	mn: <u>RTX 502.2</u>	ID: <u>0.53</u> (r	nm) Dilution Factor:	1.0
Soil Extr	act Volume:	(uL)	Soil Aliquot Volume:	(uL)
		ſ	Concentration Units:	
	CAS No.		ug/L or ug/Kg) ug/L	Q
		•		
	74-87-3	Chloromethane	5	<u> </u>
	75-01-4	Vinyl Chloride	5	<u> </u>
	74-83-9	Bromomethane	5	<u> </u>
	75-00-3	Chloroethane	5	<u>    U                                </u>
	67-64-1	Acetone	10	<u> </u>
:	75-35-4	1,1-Dichloroethene	5	<u>U</u>
	75-09-2	Methylene Chloride	5	<u> </u>
	75-15-0	Carbon Disulfide	5	U
	156-59-2	cis-1,2-Dichloroethene	3	J
	156-60-5	trans-1,2-Dichloroethene	5	U
	75-34-3	1,1-Dichloroethane	5	U
	78-93-3	2-Butanone	10	U
	67-66-3	Chloroform	5	U
	71-55-6	1,1,1-Trichloroethane	5	<u>U</u>
	56-23-5	Carbon Tetrachloride	5	U
	107-06-2	1,2-Dichloroethane	5	
	71-43-2	Benzene	5	
	79-01-6	Trichloroethene	6	
	78-87-5	1,2-Dichloropropane	5	
	75-27-4	Bromodichloromethane	5	
	108-10-1	4-Methyl-2-Pentanone	10	U
	10061-01-5	cis-1,3-Dichloropropene	5	U
	108-88-3	Toluene	5	U
	10061-02-6	trans-1,3-Dichloropropene	5	U
	79-00-5	1,1,2-Trichloroethane	5	<u> </u>
	591-78-6	2-Hexanone	10	U
	127-18-4	Tetrachloroethene	55	U
	124-48-1	Chlorodibromomethane	5	
	108-90-7	Chlorobenzene	5	
	100-41-4	Ethylbenzene	5	
	95-47-6	Xylenes (total)	5	
	100-42-5	Styrene	5	U
	75-25-2	Bromoform	5	U

FORMIVOA

# 1A EPA SAMPLE NO.

					IR78-GW04	-000
Lab Name: EA LABO	RATORIES		Contract:			
Lab Code: EA ENG	Case	No.:	SAS No.:		SDG No.:	
Matrix: (soil/water)	WATER			Lab Sample ID:	#9900270	
Sample wt/vol:	(g/	mL) <u>ML</u>	_	Lab File ID:	VH8B9432.	D
Level: (low/med)				Date Received:	1/19/99	
% Moisture: not dec.	0			Date Analyzed:	1/28/99	
GC Column: RTX 502.	2	ID: 0.53	_(mm)	Dilution Factor:	1.0	
Soil Extract Volume:	(uL	_)		Soil Aliquot Volume:	<u> </u>	(uL)
			Concentratio	on Units:		
CAS No.	Compound		(ug/L or ug/h	(g) _ug/L	Q	
79-34-5	1,1,2,2-Tetrac	chloroethane		5	U	
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#### 1A VOLATILE OBGANICS ANALYSIS DATA SHEET

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EPA	SAMPLE	NO.

Lab Name	: EA LABOR		JLATILE	URGANIC	Contract: 99		IR78-GW10-	99A
	EA ENG		se No.:		SAS No.:		SDG No.:	· ·
Matrix: (so	oil/water)	WATER				Lab Sample ID:	#9900271	
Sample wt	t/vol:	5.0	(g/mL) _	ML		Lab File ID:	VH8B9433.[	)
Level: (I	low/med)					Date Received:	1/19/99	
% Moisture	e: not dec.	0				Date Analyzed:	1/28/99	
GC Colum	n: RTX 502.2		. ID: _	0.53 (1	nm)	Dilution Factor:	1.0	
Soil Extrac	ct Volume:	•••	(uL)		So	il Aliquot Volume:	,	(uL)
				(	Concentration	Units:		
C	AS No.	Compound	1	(	ug/L or ug/Kg)	ug/L	Q	
	4-87-3	Chloromet				5	U	
75	5-01-4	Vinyl Chlor	ride			5	U	
74	4-83-9	Bromomet	hane			5	U	
7!	5-00-3	Chloroetha	ane			5	U	
67	7-64-1	Acetone				10	U	
7!	5-35-4	1,1-Dichlo	roethene			5	U	
7!	5-09-2	Methylene	Chloride			5	U	
7!	5-15-0	Carbon Di	sulfide			5	U	
1	56-59-2	cis-1,2-Dic	hloroethe	ene		5	U	
1:	56-60-5	trans-1,2-E		hene		5	U	
7:	5-34-3	1,1-Dichlo				5	U	
71	8-93-3	2-Butanon	е			10	U	
6	7-66-3	Chloroform				5	U	
	1-55-6	1,1,1-Trich				5	U	
	6-23-5	Carbon Te		le		5	U	
	07-06-2	1,2-Dichlo	roethane			5	U	
	1-43-2	Benzene				5	U	
	9-01-6	Trichloroet				5	U	
	8-87-5	1,2-Dichlo				5	U	
	5-27-4	Bromodich				5	U	:
	08-10-1	4-Methyl-2				10	U	
	0061-01-5	cis-1,3-Dic	hloroprop	pene		5	U	
	08-88-3	Toluene				5	U	
<b></b>	0061-02-6	trans-1,3-E	-			5	U	
	9-00-5	1,1,2-Trich		10		5	U	•
	91-78-6	2-Hexanor				10	U	
	27-18-4	Tetrachlor				5	U	
	24-48-1	Chlorodibr		ane		5	U	
	08-90-7	Chloroben				5	U	
	00-41-4	Ethylbenze				5	U	
	5-47-6	Xylenes (te	otal)		-	5	U	
	00-42-5	Styrene				5	<u>U</u>	
7	5-25-2	Bromoforn	n			5	U	l

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EPA SAMPLE NO.

				V	OLATILE	ORGA	NICS ANALYS	IS DATA SHEET		
	Lab Nai	me:	EA LABOR	ATORIES			Contract:	990036	IR78-GW10	-99A
	Lab Co	de:	EA ENG	Ca	ase No.:		SAS No.:		SDG No.:	
	Matrix:	(soil	/water)	WATER	_			Lab Sample ID:	#9900271	
	Sample	wt/v	rol:	5.0	_(g/mL)	ML	_	Lab File ID:	VH8B9433.	D
	Level:	(lov	w/med)					Date Received:	1/19/99	
	% Moist	ture:	not dec.	0	-			Date Analyzed:	1/28/99	
	GC Col	umn:	RTX 502.2		- ID:	0.53	(mm)	Dilution Factor:	1.0	
	Soil Ext	ract	Volume:		 (uL)			Soil Aliquot Volume:		(uL)
					-		Concentratio	n Units:		. ,
				Compound			(ug/L or ug/K		Q	
		79-:	34-5	1,1,2,2-Te	trachloro	ethane		5	U	
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1A VOLATILE ORGANICS ANALYSIS DATA SHEET

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EPA SAMPLE NO.

Lab Name: EA LABOR	ATORIES			Contract:	990036	IR78-GW41-99A
Lab Code: EA ENG	Cas	e No.:	·	SAS No.:		SDG No.:
Matrix: (soil/water)	WATER				Lab Sample ID:	#9900272
Sample wt/vol:	5.0 (	g/mL) _	ML	_	Lab File ID:	VH8B9440.D
Level: (low/med)					Date Received:	1/19/99
% Moisture: not dec.	0				Date Analyzed:	1/29/99
GC Column: RTX 502.2		ID: _	0.53	_(mm)	Dilution Factor:	1.0
Soil Extract Volume:	(	uL)			Soil Aliquot Volume:	(uL)

Concentration Units: (ug/L or ug/Kg)

CAS No.	Compound	(ug/L or ug/Kg)ug/L	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	υ
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	4	J
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Chlorodibromomethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
95-47-6	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

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		1A		EPA SAMPLE NO.
	VOLATILE (	ORGANICS AI	NALYSIS DATA SHEET	IR78-GW41-99A
Lab Name: EA LABOF	ATORIES	Con	stract: 990036	
Lab Code: EA ENG	Case No.:	SAS	S No.:	SDG No.:
Matrix: (soil/water)	WATER		Lab Sample ID:	#9900272
Sample wt/vol:	(g/mL)	ML	Lab File ID:	VH8B9440.D
Level: (low/med)			Date Received:	1/19/99
% Moisture: not dec.	0		Date Analyzed:	1/29/99
GC Column: RTX 502.2	ID:	0.53 (mm)	Dilution Factor:	1.0
Soil Extract Volume:	(uL)		Soil Aliquot Volume:	 (uL)
		Conc	entration Units:	
CAS No.	Compound		or ug/Kg)ug/L	Q
79-34-5	1,1,2,2-Tetrachloroe	ethane	5	U
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EPA SAMPLE NO.

	VOLATILE ORGANI	CS ANALYSIS DATA SHEET	
Lab Name: EA LABO	RATORIES	Contract: 990036	IR78-GW40-99A
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sample ID:	#9900273
Sample wt/vol:	5.0 (g/mL) ML	Lab File ID:	VH8B9441.D
Level: (low/med)		Date Received:	1/19/99
% Moisture: not dec.		Date Analyzed:	1/29/99
GC Column: RTX 502.2	2 ID: <u>0.53</u> (r	nm) Dilution Factor:	1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume:	(uL)
	(	Concentration Units:	
CAS No.	Compound (	ug/L or ug/Kg)ug/L	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	<u> </u>
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U ·
591-78-6	2-Hexanone	10	U
127-18-4 124-48-1	Tetrachloroethene	5	U
108-90-7	Chlorodibromomethane Chlorobenzene	5	U
100-41-4		5	U
95-47-6	Ethylbenzene Xylenes (total)	5	U U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
10-20-2		<u> </u>	

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FORM I VOA

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FPA SAMPLE NO.

				ORGAI		SIS DATA SHEET	IR78-GW40	-99A
	EA LABOR				_ Contract:	390020		
Lab Code:	EA ENG	- Ca	ase No.: _		SAS No.:		SDG No.:	
Matrix: (so	il/water)	WATER	<del>_</del>			Lab Sample ID	): #9900273	
Sample wt/	vol:	5.0	_(g/mL) _	ML		Lab File IC	): VH8B9441.I	D
Level: (lo	w/med)		_			Date Received	1: 1/19/99	
% Moisture	: not dec.	0	_			Date Analyzed	d: <u>1/29/99</u>	
GC Columr	n: <u>RTX 502.2</u>		ID: _	0.53	_(mm)	Dilution Factor	r: <u>1.0</u>	
Soil Extract	Volume:		_(uL)			Soil Aliquot Volume	): 	(uL)
					Concentrati	on Units:		
CA	AS No.	Compoun	d		(ug/L or ug/	'Kg)ug/L	Q	
79	-34-5	1,1,2,2-Te	etrachloro	ethane		5	U	
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		S ANALYSIS DATA SHEET	ELA ON WILLE NO:
	VULATILE UKGANIC		IR78-GW23-99A
Lab Name: EA LABOR	ATORIES	Contract: 990036	
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sample ID:	#9900274
Sample wt/vol:	5.0 (g/mL) ML	Lab File ID:	VH8B9442.D
Level: (low/med)		Date Received:	1/19/99
% Moisture: not dec.	0	Date Analyzed:	1/29/99
GC Column: RTX 502.2		nm) Dilution Factor:	1.0
		Soil Aliquot Volume:	
Soil Extract Volume:	(uL)	Soli Aliquot volume.	(uc)
	(	Concentration Units:	
CAS No.	Compound (	ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	600	E
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	11	
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	υ
156-59-2	cis-1,2-Dichloroethene	4100	E
156-60-5	trans-1,2-Dichloroethene	140	
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	• 5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	18	
79-01-6	Trichloroethene	17	<u> </u>
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	10	U :
108-10-1	4-Methyl-2-Pentanone		U
10061-01-5	cis-1,3-Dichloropropene	5	J
108-88-3	Toluene	5	- J - U
10061-02-6	trans-1,3-Dichloropropene 1,1,2-Trichloroethane	5	
79-00-5	2-Hexanone	10	
591-78-6 127-18-4	Z-Hexanone Tetrachloroethene	5	
127-18-4	Chlorodibromomethane	5	
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	8	+
95-47-6	Xylenes (total)	57	+
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
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# 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

	VOLATILE ONGA	MICS ANALISIS DATA SHELT	IR78-GW23-99A
Lab Name: EA LABOR	RATORIES	Contract: 990036	
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sample ID	: #9900274
Sample wt/vol:	5.0 (g/mL) ML	Lab File ID	: <u>VH8B9442.</u> D
Level: (low/med)		Date Received	: 1/19/99
% Moisture: not dec.	0	Date Analyzed	: 1/29/99
GC Column: RTX 502.2	2 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
79-34-5	1,1,2,2-Tetrachloroethane	5	
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			1A	EPA SAMP	PLE NO.
Labi	Name: EA LABOF		NICS ANALYSIS DATA SHEET Contract: 990036	IR78-GW23-	99ADL
	Code: EA ENG	Case No.:	SAS No.:	SDG No.:	
<sup>,</sup> Matr	ix: (soil/water)	WATER	Lab Sample ID	- : #9900274DL	
	ple wt/vol:	 5.0 (g/mL) ML	Lab File ID	: VH8B9502.D	)
		() * /	- Date Received	•••••	
Leve	. ,				
% M	oisture: not dec.	0	Date Analyzed	1: 2/3/99	
GC (	Column: <u>RTX 502.2</u>	ID: 0.53	(mm) Dilution Factor	: 100.0	
Soil	Extract Volume:	(uL)	Soil Aliquot Volume	):	(uL)
			Concentration Units:		
	CAS No.	Compound	(ug/L or ug/Kg)ug/L	Q	
	74-87-3	Chloromethane	500	U	
	75-01-4	Vinyl Chloride	360	JD	
	74-83-9	Bromomethane	500		
	75-00-3	Chloroethane	500	U	
	67-64-1	Acetone	1000		
	75-35-4	1,1-Dichloroethene	500		·
	75-09-2	Methylene Chloride	500		
	75-15-0	Carbon Disulfide	500		
	156-59-2	cis-1,2-Dichloroethene		D U	
	156-60-5 75-34-3	trans-1,2-Dichloroethene	500		
	78-93-3	1,1-Dichloroethane 2-Butanone	1000		
	67-66-3	Chloroform	500		
	71-55-6	1,1,1-Trichloroethane	500		
	56-23-5	Carbon Tetrachloride	500		
	107-06-2	1,2-Dichloroethane	500	U	
	71-43-2	Benzene	500		
	79-01-6	Trichloroethene	500		
	78-87-5	1,2-Dichloropropane	500	U	
	75-27-4	Bromodichloromethane	500	U	
	108-10-1	4-Methyl-2-Pentanone	1000	U	:
	10061-01-5	cis-1,3-Dichloropropene	500	U	
	108-88-3	Toluene	500	U	
	10061-02-6	trans-1,3-Dichloropropene	500	U	
	79-00-5	1,1,2-Trichloroethane	500	U	•
	591-78-6	2-Hexanone	1000	U	
	127-18-4	Tetrachloroethene	500	U	
	124-48-1	Chlorodibromomethane	500	U	
	108-90-7	Chlorobenzene	500	U	
	100-41-4	Ethylbenzene	500	U	
	95-47-6	Xylenes (total)	500	U	
	100-42-5	Styrene	500	U	
	75-25-2	Bromoform	500	U	

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FORM I VOA

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EPA SAMPLE NO.

	VOLATILE ORGAN	CS ANALYSIS DATA SHEET	
Lab Name: EA LABOF	RATORIES	Contract: 990036	IR78-GW23-99ADL
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sample ID	: <u>#9900274DL</u>
Sample wt/vol:	5.0 (g/mL) ML	Lab File ID	: <u>VH8B9502.</u> D
Level: (low/med)		Date Received	: 1/19/99
% Moisture: not dec.	0	Date Analyzed	:2/3/99
GC Column: RTX 502.2	ID: 0.53	(mm) Dilution Factor	:
Soil Extract Volume:	(uL)	Soil Aliquot Volume	: (uL)
		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg)ug/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	500	U
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FORM I VOA

### 1A VOLATILE ORGANICS ANALYSIS DATA SHEET

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EPA SAMPLE NO.

	VOLATILE ORGAN	IICS ANALYSIS DATA SHEET	
Lab Name: <u>EA LABO</u>	RATORIES	Contract: 990036	IR78-GW22A-99A
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sample ID:	#9900275
Sample wt/vol:	5.0 (g/mL) ML	Lab File ID:	<u>VH8B9445.D</u>
Level: (low/med)		Date Received:	1/19/99
% Moisture: not dec.	0	Date Analyzed:	1/29/99
GC Column: <u>RTX 502.2</u>	2 ID: <u>0.53</u>	(mm) Dilution Factor:	1.0
Soil Extract Volume:	(uL)	Soil Aliquot Volume:	(uL)
		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg)ug/L	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	υ
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U.
591-78-6	2-Hexanone	10	U ·
127-18-4	Tetrachloroethene	5	U
124-48-1	Chlorodibromomethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
95-47-6	Xylenes (total)	5	U
100-42-5	Styrene	5	
75-25-2	Bromoform	5	U
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EPA SAMPLE NO.

		VO	LATILE	ORGAN	ICS ANALYS	SIS DATA SHEET	IR78-GW22	A-00A
Lab Nar	ne: EA LABO	RATORIES			Contract:	990036		
Lab Coc	le: <u>EA ENG</u>	_ Cas	se No.: _		SAS No.:		SDG No.:	
Matrix:	(soil/water)	WATER				Lab Sample ID	): #9900275	
Sample	wt/vol:	5.0	(g/mL) _	ML		Lab File IC	): VH8B9445.	D
Level:	(low/med)					Date Received	d: <u>1/19/99</u>	
% Moist	ure: not dec.	0				Date Analyzed	d: 1/29/99	
GC Colt	umn: RTX 502.2	2	ID:	0.53	(mm)	Dilution Factor	r: 1.0	•
	ract Volume:	······································	 (uL)	<u></u>		Soil Aliquot Volume		(uL)
			()		Concentratio			. ()
	CAS No.	Compound			(ug/L or ug/		Q	
	79-34-5	1,1,2,2-Tetr	achloroe	thane		5	l u	1
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	1A			AMPLE NO.
	VOLATILE ORGANICS A	ANALYSIS DATA SHE		78-GW24-99
Lab Name: EA LA	ABORATORIES	Contract: 990		
Lab Code: EA El	NG Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water)			nple ID: 9900208	
Sample wt/vol:	5.0 (g/ml) <u>ML</u>	Lab File	ID: VC3A10	57 D
Level: (low/med)			ceived: 1/18/99	
% Moisture: not dec	).	Date An	alyzed: <u>1/25/99</u>	<u> </u>
GC Column: DB-	624 ID: 0.25 (mm)	Dilution	Factor: 1.0	
	:: (uL)		uot Volume:	
	(UL)			(uL)
		CONCENTRATION	UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/Kg)		Q
0/10/110				Q
74-87-3	Chloromethane		5	U
75-01-4	Vinyl Chloride		25	
74-83-9	Bromomethane		5	U
75-00-3	Chloroethane		5	U
67-64-1	Acetone	·····	10	U
75-35-4	1,1-Dichloroethen		5	U
75-09-2	Methylene Chlorid	le	5	U
75-15-0	Carbon Disulfide		5	U
75-34-3	1,1-Dichloroethan	e	5	U
78-93-3	2-Butanone	- 416	10	U
<u>156-60-5</u> 67-66-3	trans-1,2-Dichloro Chloroform	etnene	18	<u> </u>
71-55-6	1,1,1-Trichloroetha		5	U
56-23-5	Carbon Tetrachlor		5	UUU
156-59-2	cis-1,2-Dichloroeth		380	E
107-06-2	1,2-Dichloroethan		5	U
71-43-2	Benzene	<u> </u>	5	U
79-01-6	Trichloroethene		1/	
78-87-5	1,2-Dichloropropa	ne	5	U
75-27-4	Bromodichloromet		5	U
108-10-1	4-Methyl-2-Pentar	none	10	U
10061-01-5	cis-1,3-Dichloropro	opene	5	U
108-88-3	Toluene		4	J
10061-02-6	trans-1,3-Dichloro		5	U
79-00-5	1,1,2-Trichloroetha	ane	5	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		5	U
124-48-1	Chlorodibromome	thane	5	U
108-90-7	Chlorobenzene		5	U
100-41-4	Ethylbenzene		5	U
1330-20-7	Xylenes (total)		5	U
<u>100-42-5</u> 75-25-2	Styrene		5	U
79-34-5	Bromoform 1,1,2,2-Tetrachloro		5	U
13-04-0		veniane	5	U

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EPA SAMPLE NO.

	V	<b>OLATILE O</b>	RGANICS ANAL	YSIS DATA	SHEET		
Lab Name:		ORATORIE		Contract:	990031	IR78-GW24	-99ADL
Lab Code:	EA ENG	Cas	se No.:	SAS No	).: S	DG No.:	
Matrix: (soil/w	ater)	WATER	-	Lal	b Sample ID:	9900208DL	
Sample wt/vol	l:	5.0	(g/mi) ML	_ Lai	b File ID:	VC3A1180.D	
Level: (low/m	ned)	LOW		Da	te Received:	1/18/99	
% Moisture: n	ot dec.			Da	te Analyzed:	2/1/99	
GC Column:	DB-624	4_ ID: <u>0.2</u>	5(mm)	Dik	ution Factor:	5.0	
Soil Extract Vo	olume:		_ (uL)	Soi	il Aliquot Volu	me:	(uL)

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
74-87-3	Chloromethane		25	U
75-01-4	Vinyl Chloride		21	JD
74-83-9	Bromomethane		25	U
75-00-3	Chloroethane		25	U
67-64-1	Acetone		50	U
75-35-4	1,1-Dichloroethen	e	25	U
75-09-2	Methylene Chlorid	ie	30	D
75-15-0	Carbon Disulfide		25	U
75-34-3	1,1-Dichloroethan	е	25	U
78-93-3	2-Butanone		50	U
156-60-5	trans-1,2-Dichloro	ethene	25	Ŭ
67-66-3	Chloroform		25	Ŭ
71-55-6	1,1,1-Trichloroeth	ane	25	U
56-23-5	Carbon Tetrachlo		25	U
156-59-2	cis-1,2-Dichloroet	hene	360	D
107-06-2	1,2-Dichloroethan		25	U
71-43-2	Benzene		25	U
79-01-6	Trichloroethene		25	U
78-87-5	1,2-Dichloropropa	ne	25	U
75-27-4	Bromodichlorome		25	U
108-10-1	4-Methyl-2-Pentar	none	50	Ū
10061-01-5	cis-1,3-Dichloropro		25	U
108-88-3	Toluene		25	U
10061-02-6	trans-1,3-Dichloro	propene	25	Ŭ
79-00-5	1,1,2-Trichloroetha	ane	25	Ŭ
<u>591-78-6</u>	2-Hexanone		50	Ŭ
127-18-4	Tetrachloroethene		25	Ŭ
124-48-1	Chlorodibromome	thane	25	Ŭ
108-90-7	Chlorobenzene		25	U
100-41-4	Ethylbenzene		25	<u> </u>
1330-20-7	Xylenes (total)		25	<u> </u>
100-42-5	Styrene		25	U
75-25-2	Bromoform		25	U
79-34-5	1,1,2,2-Tetrachloro	pethane	25	U

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	1A		EPA SA	MPLE NO.
N	VOLATILE ORGANICS ANA	ALYSIS DATA SHEET	IR	78-TB01-99A
Lab Name: EA LAE	ORATORIES	Contract: 990031		
Lab Code: EA ENC	G Case No.:	SAS No.:	SDG No.:	
Matrix: (soil/water)	WATER	Lab Sample II	D: 9900209	
Sample wt/vol:	5.0 (g/ml) ML	Lab File ID:		
			· · · · · · · · · · · · · · · · · · ·	
Level: (low/med)	LUW	Date Receive	d: <u>1/18/99</u>	
% Moisture: not dec.	<u></u>	Date Analyze	d: <u>1/25/99</u>	
GC Column: DB-62	24 ID: 0.25 (mm)	Dilution Facto	r: 1.0	
Soil Extract Volume:	(uL)	Soil Aliquot V	olume:	(uL)
	()			(uc)
	C	ONCENTRATION UNIT	S:	
CAS NO.	COMPOUND (u	ıg/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane		5	U
75-01-4	Vinyl Chloride		5	U
74-83-9	Bromomethane		5	U
75-00-3	Chloroethane		5	U
67-64-1	Acetone		10	U
75-35-4 75-09-2	1,1-Dichloroethene		5	U
75-15-0	Methylene Chloride		5	U
75-34-3	Carbon Disulfide 1,1-Dichloroethane		<u>5</u> 5	U
78-93-3	2-Butanone		5 10	U
156-60-5	trans-1,2-Dichloroethe	000	5	U
67-66-3	Chloroform		5	UUU
71-55-6	1,1,1-Trichloroethane		5	U
56-23-5	Carbon Tetrachloride		5	U
156-59-2	cis-1,2-Dichloroethen		5	U
107-06-2	1,2-Dichloroethane		5	U
71-43-2	Benzene		5	U
79-01-6	Trichloroethene		5	Ŭ
78-87-5	1,2-Dichloropropane		5	U
75-27-4	Bromodichloromethan	ne	5	U
108-10-1	4-Methyl-2-Pentanone	9	10	U
10061-01-5	cis-1,3-Dichloroproper	ne	5	U
108-88-3	Toluene		5	U
10061-02-6	trans-1,3-Dichloroprop	pene	5	U
79-00-5	1,1,2-Trichloroethane		5	U
591-78-6	2-Hexanone		10	U
127-18-4	Tetrachloroethene		5	U
124-48-1	Chlorodibromomethar	ne	5	U
108-90-7	Chlorobenzene		5	<u> </u>
100-41-4	Ethylbenzene		5	U
1330-20-7	Xylenes (total)		5	<u> </u>
100-42-5	Styrene		5	<u> </u>
75-25-2	Bromoform		5	U
79-34-5	1,1,2,2-Tetrachloroeth	nane	5	U

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# EPA SAMPLE NO.

			V	ULATILE ()	RGAN	ICS ANALYSIS D		IR78GW019	0.4
	Lab Name:	EA LABOR	RATORIES			Contract:			
	Lab Code:	EA ENG	_ C	ase No.:	<u></u>	SAS No.:		SDG No.:	
	Matrix: (soi	l/water)	WATER	-			Lab Sample ID:	#9900369	
	Sample wt/	vol:	5.0	_(g/mL)	ML		Lab File ID:	VE5B9576.	D
	Level: (lo	w/med)		-			Date Received:	1/20/99	
	% Moisture:	not dec.		-		<u> </u>	Date Analyzed:	1/28/99	
	GC Column	: RTX 502.2	•	ID:	0.53	(mm)	Dilution Factor:	1.0	
	Soil Extract	Volume:		_(uL)		Soil	Aliquot Volume:		(uL)
						Concentration U	nits:		
	CA	S No.	Compound	d		(ug/L or ug/Kg)	ug/L	Q	
		07.0	•						
		87-3 01-4	Chloromet Vinyl Chlo				5	U	
		83-9	Bromomet				5	U U	
		00-3	Chloroetha				5	<u>ປ</u>	
		64-1	Acetone				10	U U	
		35-4	1,1-Dichlo	roethene			5	U U	
	· · · · · · · · · · · · · · · · · · ·	09-2	Methylene				5	U U	
		15-0	Carbon Di				5	U	
		5-59-2		hloroethen	e		4	<u>J</u>	
,	156	60-5	···	Dichloroethe			5	U	
	75-	34-3	1,1-Dichlo	roethane			5	U	
		93-3	2-Butanon				10	U	
		66-3	Chloroform				5	U	
		55-6		loroethane			5	U	
. •		23-5		trachloride			5	U	
		-06-2	1,2-Dichlor	roethane			5	U	
		43-2	Benzene				5	U	
		01-6	Trichloroet				7		
Ĥ		87-5	1,2-Dichlor				5	U	
F	L	27-4		loromethan			5	<u> </u>	
		-10-1 61-01-5		-Pentanone		· ·	10	U	
		-88-3	Toluene	hloroprope	IE		5	<u> </u>	
		61-02-6		Dichloroprop	one		5 5	U U	
		00-5		loroethane			5	U U	•
		-78-6	2-Hexanor				10	U U	
		-18-4	Tetrachlor				5	U U	
		-48-1		omomethar	ne		5	U U	
		-90-7	Chloroben		-		5	U	
		-41-4	Ethylbenze				5	U	
	· · · · · · · · · · · · · · · · · · ·	<b>17-</b> 6	Xylenes (to				5	U	
<u>.</u>	100	-42-5	Styrene				5	U	
. **	75-2	25-2	Bromoform	)			5	U	

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LE NO.

			EPA SAMPLE N
		VICS ANALYSIS DATA SHEE	T IR78GW0199A
Lab Name: EA LABOR	RATORIES	Contract:	
Lab Code: EA ENG	Case No.:	SAS No.:	SDG No.:
Matrix: (soil/water)	WATER	Lab Sampl	e ID: #9900369
Sample wt/vol:	5.0(g/mL)ML	- Lab Fil	e ID: VE5B9576.D
Level: (low/med)		Date Rece	ived: 1/20/99
% Moisture: not dec.		Date Analy	/zed: 1/28/99
GC Column: RTX 502.2	2 ID: 0.53	(mm) Dilution Fa	ctor: <u>1.0</u>
Soil Extract Volume:	(uL)	Soil Aliquot Vol	ume: (uL)
		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U
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EPA SAMPLE NO.

			V	OLATILE	ORGAN	ICS ANALYSIS	DATA SHEET	IR78TB0399	
	Lab Name:	EA LABOR	RATORIES			Contract:		1010039	
~	Lab Code:	EA ENG	_ c	ase No.:		SAS No.:		SDG No.:	
	Matrix: (soil	/water)	WATER	_			Lab Sample ID:	#9900383	
	Sample wt/v	ol:	5.0	_(g/mL) _	ML		Lab File ID:	VE5B9589.I	C
	Level: (lov	v/med)	<u></u>				Date Received:	1/20/99	
	% Moisture:	not dec.	<u></u>				Date Analyzed:	1/29/99	·
	GC Column:	RTX 502.2		ID:	0.53	(mm)	Dilution Factor:	1.0	
	Soil Extract	Volume:		_(uL)		So	il Aliquot Volume:		(uL)
						Concentration	Units:		
	CAS	S No.	Compoun	d		(ug/L or ug/Kg)		Q	
	74-8	37-3	Chlorome	thane	<u></u>		5	U 1	
	75-0	D1-4	Vinyl Chlo				5	U	
		33-9	Bromome		<u></u>		5	U U	
		00-3	Chloroeth				5	U	
	67-6		Acetone				10	U	
		35-4	1,1-Dichlo	roethene	<u> </u>		5	U	
		09-2	Methylene				5	U	
		15-0	Carbon Di				5	U	
	156	-59-2	cis-1,2-Dic		ene		5	U U	
	156	-60-5	trans-1,2-				5	U	
	75-3	34-3	1,1-Dichlo	roethane			5	U	
	78-9	93-3	2-Butanon	е			10	U	
	67-6	36-3	Chloroforn	n			5	U	
	71-5	55-6	1,1,1-Trich	loroethar	ne		5	U	
•	56-2	23-5	Carbon Te	trachloric	de		5	U	
	107	-06-2	1,2-Dichlo	roethane			5	U	
	71-4	13-2	Benzene				5	U	
	79-0	)1-6	Trichloroe	thene			5	U	
	78-8	37-5	1,2-Dichlo	ropropan	e		5	U	
ľ	75-2	27-4	Bromodich	lórometh	ane		5	U	
	108-	-10-1	4-Methyl-2	Pentanc	ne.		10	U	
	100	61-01-5	cis-1,3-Dic	hloroprop	pene		5	U	· •
	108-	-88-3	Toluene				5	U	
	1006	61-02-6	trans-1,3-[	Dichlorop	ropene		5	U	
	79-0	0-5	1,1,2-Trich	loroethar	าย		5	U	•
	591-	-78-6	2-Hexanor	10			10	U	
	127-	-18-4	Tetrachlor	oethene			5	U	
	-	-48-1	Chlorodibr	omometh	ane		5	U	
	108-	-90-7	Chloroben	zene			5	U	
		41-4	Ethylbenze	ene			5	U	
« «	95-4	7-6	Xylenes (te	otal)			5	U	
		-42-5	Styrene				5	Ū	
•	75-2	25-2	Bromoform	י <u></u> ו			5	U	

EPA SAMPLE NO

		<b>VOLATILE ORGA</b>	NICS ANALYSIS I	DATA SHEET		
Lab Na	me: EA LABO	RATORIES	Contract:		IR78TB039	9A
Lab Co	de: EA ENG	Case No.:	SAS No.:		SDG No.:	
Matrix:	(soil/water)	WATER		Lab Sample ID:	#9900383	
Sample	e wt/vol:	5.0 (g/mL) ML		Lab File ID:	: VE5B9589.	D
Level:	(low/med)			Date Received	: 1/20/99	_
% Mois	ture: not dec.			Date Analyzed:	: 1/29/99	-
GC Col	lumn: RTX 502.2	2 ID: 0.53	(mm)	Dilution Factor:	1.0	•
Soil Ext	tract Volume:	(uL)	 Soi	I Aliquot Volume:	********	(uL)
			Concentration L	Jnits:		
	CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q	
	79-34-5	1,1,2,2-Tetrachloroethane		5	U	
				······		
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**ATTACHMENT D** 

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## Monthly Report – January 1999 Site 78 Hadnot Point MCB Camp Lejeune, North Carolina Contract N62420-93-D-3032 Delivery Order 0175

Product Recovery	
111	
5065	
North Plant	South Plant
1/1 - 1/31/98	1/1 - 1/31/98
31 days	31 days
0	0
0	0
In	
3.06 gpm	5.78 gpm
731 hours	670 hours
134,258 gallons	232,288 gallons
	111 5065 North Plant 1/1 – 1/31/98 31 days 0 0 0 3.06 gpm 731 hours

Treatment System Performance

1. North Plant - Treated 6,500 gallons from AFVR events.

2. The South Plant was down to work on pump controllers and circuit breaker tripping over weekend; the North Plant was down to allow for installation of well 12.

3. Normal maintenance has included 12 bag filter changes North Plant, 10 bag filter changes South Plant, back-washing sand filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

1. The volumes of treated groundwater have been based upon actual readings from the flowmeters installed at each plant.

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Prepared by:	
Ama de lun	
James A. Dunn, Jr., P.E. Senior Project Manager	

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### Monthly Report – February 1999 Site 78 Hadnot Point MCB Camp Lejeune, North Carolina Contract N62420-93-D-3032 Delivery Order 0175

AFVR Events	Product Recovery	
Current period	200	
Total to date	5265	
	North Plant	South Plant
Period of Performance	2/1 - 2/28/98	2/1 - 2/28/98
Duration	28 days	28 days
Product Recovery	0	0
Previously reported	0	0
Treated Groundwater	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Estimated rate	2.88 gpm	7.50 gpm
Duration	500 hours	477 hours
Estimated total treated this period	86,460 gallons	214,748 gallons

Treatment System Performance

1. North Plant - Treated 4,900 gallons from AFVR events, 1,500 gallons from TT-2477, 4,500 gallons from Building 1115 and 6,850 from Jones AFVR events.

2. The South Plant was down to clean the air stripper and replace all gaskets, modify the blower, replace all gauges on the sand filters and pumps, clean the secondary pumps and sump pumps, and perform the semi-annual maintenance activities. The North was down to clean the stripping tower and repair internals, modify the blower, replace the sight glass and pump controller, rework the asand filters and perform semi-annual maintenance on all equipment.

3. Normal maintenance has included 10 bag filter changes North Plant, 7 bag filter changes South Plant, back-washing sand filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

1. The volumes of treated groundwater have been based upon actual readings from the flowmeters installed at each plant.

Prepared by: Amelia Manager James A. Dunn, Jr., P.E. Schior Project Manager

## Monthly Report – March 1999 Site 78 Hadnot Point MCB Camp Lejeune, North Carolina Contract N62420-93-D-3032 Delivery Order 0175

AFVR Events	Product Recovery	
Current period	260	
Total to date	5525	
	North Plant	South Plant
Period of Performance	3/1 - 3/31/99	3/1 - 3/31/99
Duration	31 days	31 days
Product Recovery	0	0
Previously reported	0	0
Treated Groundwater		
Estimated rate	4.73 gpm	6.14 gpm
Duration	734 hours	614 hours
Estimated total treated this period	179,396 gallons	226,126 gallons

1. North Plant - Treated 4,500 gallons from AFVR events, 11,400 gallons from Building 1115, HPFF and BM-820 and 12,967 from Jones AFVR events.

2. The South Plant was down to repair the air leak between wells 6 & 7 and to tie-in the new wells.

3. Normal maintenance has included 12 bag filter changes North Plant, 9 bag filter changes South Plant, back-washing sand

filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

		0=
	Prepared by:	
$\bigcap$	James A. Dunn, Jr., P.E. March 31, 1999	
	James A. Dunn, Jr., P.E. March 31, 1999	
$\langle /  $	Senior Project Manager	

## Monthly Report – April 1999 Site 78 Hadnot Point MCB Camp Lejeune, North Carolina Contract N62420-93-D-3032 Delivery Order 0175

AFVR Events	Product Recovery	
Current period	260	
Total to date	5525	
	North Plant	South Plant
Period of Performance	4/1 - 4/30/99	4/1 - 4/30/99
Duration	28.7 days	24.4 days
Product Recovery	232	0
Previously reported	0	0
Treated Groundwater		анц <u>а</u> ниция у на
Estimated rate	3.42 gpm	8.77 gpm
Duration	686 hours	586 hours
Estimated total treated this period	147,550 gallons	396,638 gallons

1. North Plant - Treated 2,050 gallons from AFVR events and 4,780 from Jones AFVR events. South Plant treated 52,800 gallons from Building 25 and 9,000 gallons of produced water from HPFF SVE systems.

2. The South Plant was down to repair the air leak between the plant and well 5 and to repair chemical pumps The North plant was down to clean solids from system.

3. Normal maintenance has included 13 bag filter changes North Plant, 11 bag filter changes South Plant, back-washing sand filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

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Prepared by:		
June la mm		
James A. Dunn, Jr., P.E. Senior Project Manager	April 30, 1999	
/		<u> </u>

## Monthly Report -- May 1999 Site 78 Hadnot Point MCB Camp Lejeune, North Carolina Contract N62420-93-D-3032 Delivery Order 0175

AFVR Events	Product Recovery	
Current period	145	
Total to date	5670	
	North Plant	South Plant
Period of Performance	5/1 - 5/31/99	5/1 - 5/31/99
Duration	30.75 days	29.08 days
Product Recovery	0	0
Previously reported	0	0
Treated Groundwater		
Estimated rate	2.94 gpm	8.12 gpm
Duration	738 hours	698 hours
Estimated total treated this period	129,981 gallons	339,971 gallons

1. North Plant - Treated 1,500 gallons from AFVR events, 3,300 from Jones AFVR events and 2,000 gallons IDW water from

Site 73. South Plant treated 50,400 gallons from Building 25 and 21,600 gallons of produced water from SVE systems.

2. The South Plant was down to clean the air stripper and to repair chemical pumps.

3. Normal maintenance has included 11 bag filter changes North Plant, 12 bag filter changes South Plant, back-washing sand filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

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	Prepared by:	
$\hat{\left( \right)}$	James A. Dunn, Jr., P.E. May 31, 1999	
	Senior Project Manage	

## Monthly Report – June 1999 Site 78 Hadnot Point MCB Camp Lejeune, North Carolina Contract N62420-93-D-3032 Delivery Order 0175

AFVR Events	Product Recovery	
Current period	242	
Total to date	5912	
	North Plant	South Plant
Period of Performance	6/1 - 6/30/99	6/1 - 6/30/99
Duration	26.42 days	26.75 days
Product Recovery	0	0
Previously reported	0	0
Treated Groundwater		
Estimated rate	3.28 gpm	9.83 gpm
Duration	634 hours	642 hours
Estimated total treated this period	103,069 gallons	307,865 gallons

1. North Plant - Treated 1,750 gallons from AFVR events, 11,011 from Jones AFVR events and 9,000 gallons water from SVE production at HPFF. South Plant treated 67,000 gallons from Building 25 and 3,600 gallons of produced water from SVE systems.

2. The South Plant was down to work on well controllers, work on control console and to clean surge, floc and effluent tanks.

3. Normal maintenance has included 11 bag filter changes North Plant, 12 bag filter changes South Plant, back-washing sand filters and carbon units, solids management both plants and E 405 calcium surfactant agent at both plants.

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l	Prepared by:	
	James A. Dunn, Jr., P.E. June 30, 1999	
	James A. Dunn, Jr., P.E. June 30, 1999 Senior Project Manager	
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