06.07-07/30/99-02329

MONITORING REPORTS

OPERABLE UNIT NO. 10 - SITE 35
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

REPORTING PERIOD JANUARY 1999 – MARCH 1999

CONTRACT TASK ORDER - 0120

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PREFACE

The monitoring reports that are presented herein describe the procedures, analytical findings, and subsequent recommendations of the monitoring program at Operable Unit (OU) No. 10 (Site 35), Marine Corps Base (MCB) Camp Lejeune, North Carolina. Figure P-1 depicts the location of OU 10. The monitoring reports have been prepared by Baker Environmental, Inc. (Baker) and submitted to the United States Environmental Protection Agency – Region IV; the North Carolina Department of Environment and Natural Resources; the Environment Management Department of MCB, Camp Lejeune; and the Naval Facilities Engineering Command, Atlantic Division (LANTDIV).

The previous field investigations that have been performed by Baker, have formed the basis for the forthcoming Record of Decision (ROD), which defines site-specific remedial goals. Based on the nature of contamination revealed by data from the past investigations, Site 35 was introduced as a candidate for remediation via monitored natural attenuation (NA) in January of 1999. NA is a process by which natural subsurface mechanisms reduce contaminant toxicity, mobility, or volume. These mechanisms include biodegradation, dispersion, dilution, sorption, volatilization, and chemical/biochemical stabilization. Baker has been tasked to implement monitoring at Site 35 to provide additional data necessary to support NA as a remedial alternative.

The principal objectives of the monitoring program at OU 10 are as follows: (1) monitor potential for human or ecological exposure due to off-site migration of contaminants, and (2) give a brief history on the installed groundwater treatment system located at Site 35. The quarterly monitoring reports document the findings and provide interested parties with information required to authorize future decisions regarding OU 10. The information presented in the reports will be used to either extend, modify, or discontinue the monitoring program as necessary.

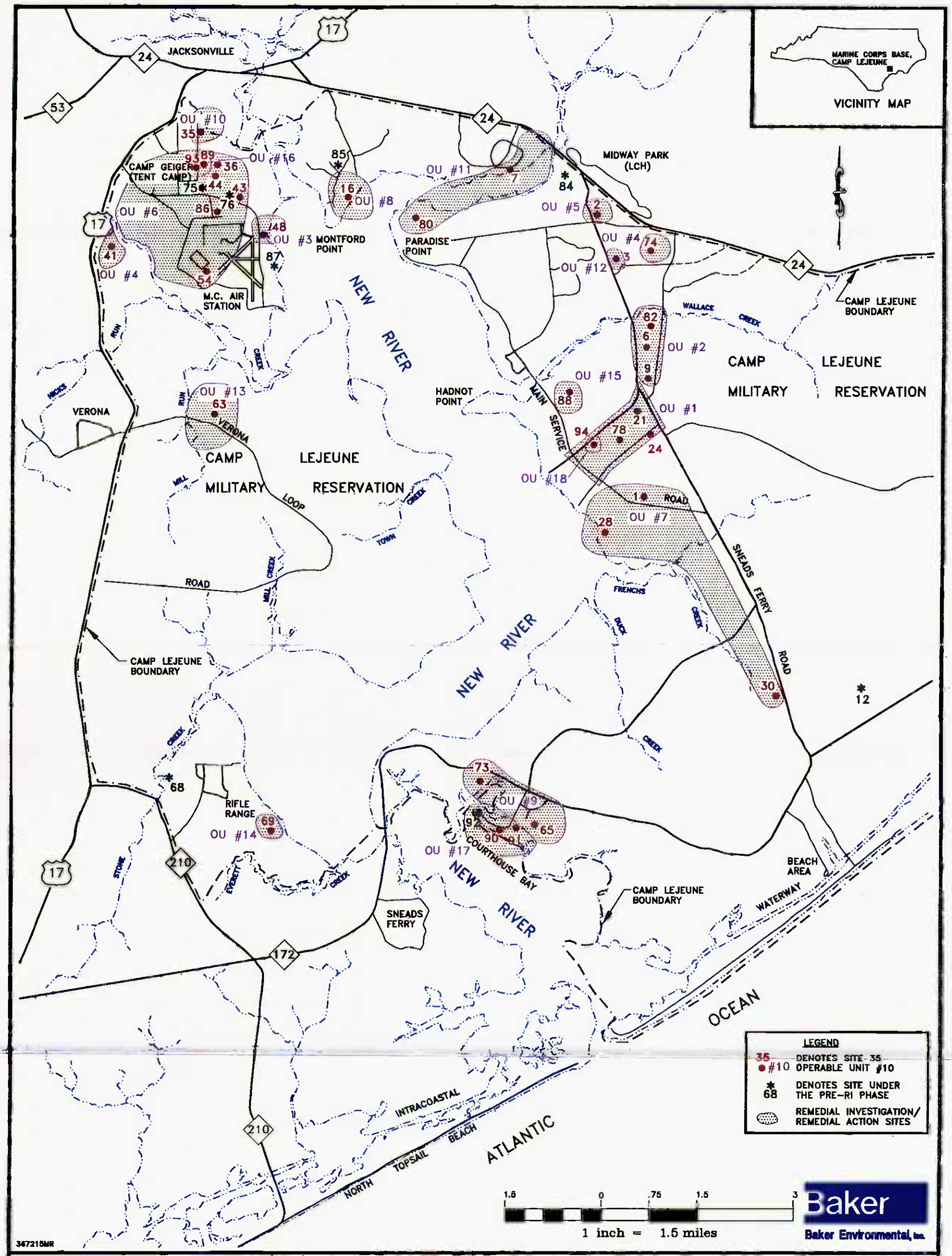

FIGURE P-1
LOCATION MAP
OPERABLE UNIT No. 10 – SITE 35
MONITORING AND O&M SUPPORT, CTO-0120

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

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MONITORING REPORT

This monitoring report presents a summary of sampling activities, field observations, and analytical results that pertain to the natural attenuation monitoring program at Operable Unit (OU) No. 10 (Site 35), Marine Corps Base (MCB), Camp Lejeune, North Carolina. Recommendations regarding the monitoring program at OU 10 are also presented within this report.

Site 35 is located within Camp Geiger. Natural attenuation monitoring activities at Site 35 began in January of 1999 and are scheduled to continue on a quarterly basis. Monitoring includes the collection of groundwater and surface water samples. Groundwater samples were obtained from five shallow monitoring wells and nine intermediate wells on January 20, 1999. Figure 1 depicts the locations of all monitoring wells at Site 35 and identified the wells and surface water sampling locations included in the monitoring program. Table 1 provides the total depths of monitoring wells included in the monitoring program at Site 35. [All tables and figures are provided after the text portion of this report.]

Groundwater monitoring at OU 10 includes sampling of natural attenuation (NA) parameters. NA is a process by which natural subsurface mechanisms reduce contaminant toxicity, mobility, or volume. These mechanisms include biodegradation, dispersion, dilution, sorption, volatilization, and chemical/biochemical stabilization. The following NA-specific lists the geochemical and biochemical parameters collected and evaluated at Site 35.

- Dissolved Oxygen (anaerobic pathway indicator)
- Nitrate (substrate for microbial respiration)
- Iron (II) (anaerobic degradation process indicator)
- Sulfate (substrate for microbial respiration)
- Methane/Ethane/Ethene (confirmation of biological transformation of chlorinated solvents)
- Chloride (sample confirmation of same aquifer system)
- Total Organic Carbon (used to classify plume)
- Alkalinity (measures buffering capacity of groundwater)
- pH (aerobic and anaerobic processes are pH sensitive)
- Temperature (well development)
- Conductivity (sample confirmation of same aquifer system)
- Oxidation – Reduction (used to identify reductive environments)

Measurements of pH, specific conductance, dissolved oxygen, temperature, turbidity, and oxidation-reduction potential (Eh) were field parameters recorded prior to sampling. At least three well volumes were purged from each well prior to groundwater collection. Groundwater field parameters were measured between each volume or, in the case of large volumes, between each half volume. A summary of groundwater field parameters from Sites 35 are provided in Table 2.

To accurately evaluate NA processes, immediate field analyses for ferrous iron, alkalinity, and chloride were also conducted. Natural attenuation parameters are discussed later in this report.

Table 3 summarizes requested laboratory analyses and sample identifications. Requested laboratory analyses were chosen based on the results of previous investigations at OU 10, and in order to monitor natural attenuation processes. Groundwater contamination detected in previous investigations at Site 35 consisted of VOC's that were constituent of chlorinated solvents and fuels used and dispensed at the site when it was active. Contaminants of concern at Sites 35 include Volatile Organic

Compounds (VOCs). Additional laboratory analyses were conducted to monitor natural attenuation and to determine background conditions on site. Monitoring well 35-MW65B was designated as a background well.

Sampling activities were conducted and subsequent laboratory analyses were performed according to Standard Operating Procedures (SOPs) and methods specified in the Long Term Monitoring Work Plans for Remedial Investigation Sites (Baker, 1996). 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 sample labels. Chain-of-Custody documentation, provided in Attachment A, accompanied the samples to the laboratory.

Prior to the start of the natural attenuation evaluation program, monitoring wells at OU 10 were developed in September 1998 to remove fine-grained material from the well screens and to establish interconnection with the surrounding geologic formation. However, these wells were not redeveloped prior to the introduction of Site 35 into the Long Term Monitoring (LTM) Program in January 1999. Site 35 will now be redeveloped once every two years along with the rest of the LTM sites.

Groundwater Elevation and Flow Direction

On January 20, 1999, a complete round of static groundwater level measurements were recorded from monitoring wells at Site 35. A summary of these measurements and corresponding groundwater elevations in the upper and lower portions of the surficial aquifer is provided in Table 4.

Groundwater flow in the upper portion of the surficial aquifer north of 5th Street is in a northeasterly direction toward Brinson Creek, as depicted by the groundwater contours in Figure 2. This pattern of groundwater flow is consistent with historical patterns. Hydrological conditions in the upper surficial aquifer are not monitored south of 5th Street because no permanent monitoring wells were installed in this interval during previous investigations.

Groundwater residing in the lower portion of the surficial aquifer also flows in a northeasterly direction towards Brinson Creek north of 7th Street. However, south of 7th Street groundwater in the lower portion of the surficial aquifer flows in a southeasterly direction towards Edwards Creek (not shown) located south of 8th Street. Groundwater contours in the lower portion of the surficial aquifer are depicted in Figure 3 and are generally consistent with historical patterns. However, static water levels at three monitoring wells were very inconsistent with previous data.

Field Observations

The following field observations were noted during the sampling events at Site 35. Recommendations concerning the field observations are presented later within this report.

Due to the construction of U.S. Highway 17 bypass at Site 35, gaining access to the wetland wells has become difficult if not dangerous due to heavy equipment in the area. The terrain, especially in the wetland area of Site 35, has become more open due to the construction activities.

A number of the wells at Sites 35 have begun to show signs of deterioration. The bollards and protective casings of many of the wells have developed rust. In addition, a number of padlocks used to secure the protective covers are either missing or no longer function properly. The usability and security of each monitoring well should be maintained if they are going to remain reliable groundwater sample collection points in the future.

ANALYTICAL RESULTS AND FINDINGS

This section presents analytical results from the surface water and groundwater sampling performed at Site 35 during the first 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.

One trip blank sample was prepared prior to the sampling event. The trip blank accompanied all groundwater samples from this site during field collection, shipment, and laboratory analysis. As provided in Table 5, there were no positive detections of any organic compounds in the trip blank sample.

Volatile Organic Compounds

Groundwater samples were collected from a total of 14 monitoring wells at Site 35 during this sampling event. To monitor conditions in the upper portion of the surficial aquifer were samples were collected from five monitoring wells (35-MW10S, 35-MW14S, 35-MW31A, 35-MW61A and 35-MW62A that are screened across the water table. To monitor conditions in the lower portion of the surficial aquifer samples were collected from nine monitoring wells (35-MW10D, 35-MW14D, 35-MW31B, 35-MW40B, 35-MW43B, 35-MW55B, 35-MW63B, 35-MW64B and 35-MW65B) with screened intervals located immediately above the semiconfining unit that is prevalent at Site 35.

A total of seven solvent-related VOC contaminants were detected at the site during this sampling event. However, no fuel-related contamination was detected. The most prevalent solvent-related VOC contaminants were primarily trichloroethene (TCE), cis-1,2 dichloroethene (cis-1,2 DCE), trans-1,2 dichloroethene (trans-1,2 DCE) and vinyl chloride (VC). However, 1,1,1 -trichloroethane, 1,1,2,2 tetrachloroethane, and 1,1 dichloroethene were also detected in a limited number of wells.
Solvent-related VOC contamination was detected in three (35-MW14S, 35-MW61A and 35-MW62A) of the five monitoring wells screened in the upper portion of the surficial aquifer. Two of these wells (35-MW14S and 35-MW61A) exhibited levels of contamination that exceeded regulatory standards. Solvent-related VOC contamination was detected in six (35-MW10D, 35-MW14D, 35-MW31B, 35-MW40B, 35-MW55B and 35-MW64B) of the nine monitoring wells screened in the lower portion of the surficial aquifer. Contamination levels in all six of these samples exceeded regulatory standards. A summary of groundwater analytical results is provided in Table 6 and a positive detection summary of all analytical results is presented in Table 7. A comparison of contaminant data is compared to regulatory standards in Table 8. Contaminant data is presented graphically on Figures 4 and 5.

The sample collected from monitoring well 35-MW55B (located in the wetland) exhibited the highest level of solvent-related VOC contamination (1,802 ug/L) detected in the lower surfical aquifer and at the site. The highest level of solvent-related VOC contamination was observed in monitoring well 35-MW14S (located upgradient of the in-situ air sparging trench {IAS} trench)(630 ug/L).

Overall the levels of solvent-related VOC contamination observed in the wells sampled this quarter are consistent with the results of previous sample events. However, substantial fluctuations in contaminant levels were observed in the following wells:

- A substantial decrease in contamination was observed in monitoring well 35-MW10S. No detections of solvent or fuel-related VOC contamination were observed in this well during this sampling event. However, samples collected in September 1998 exhibited 91 ug/L and 4 ug/L of solvent-related and fuel-related VOC contamination, respectively. However, it should be noted that levels of contamination observed in monitoring well 35-MW10S during the current sampling event are consistent with levels observed during the first quarter of 1998.

- A substantial decrease in contamination was observed in monitoring well 35-MW55B. During this sampling event this well exhibited 1,802 ug/L of total solvent-related VOC contamination. However, samples collected in September 1998 exhibited 2,391 ug/L of total solvent-related VOCs.

Surface water samples were collected from Brison Creek at locations adjacent to monitoring wells 35-MW61A, 35-MW62A and 35-MW65B. No solvent or fuel-related contamination was detected in these samples.

Monitored Natural Attenuation Results

NA parameters were analyzed in the field and at a fix-base laboratory. Field parameters include ferrous iron, total alkalinity, and chloride. Field parameter results obtained at Site 35 for January 1999 are presented on Table 9. These analyses were performed on-site using a portable data logging spectrophotometer (Hach DR/2010).

Fixed-base laboratory parameters include nitrate, sulfate, nitrite, orthophosphate, ammonia, total organic carbon, total organic nitrogen, and dissolved gases (methane, ethane, ethene). All non-background wells were analyzed for dissolved gases, nitrate, and sulfate as presented on Figures 6 and 7. A positive detection summary of all analytical results is presented in Table 10, while Table 11 provides a summary of natural attenuation analytical results in groundwater.

In general, levels ferrous iron, total alkalinity (as calcium carbonate $CaCO_3$), chloride, nitrate, sulfate, dissolved gases, nitrite, orthophosphate, ammonia, total organic carbon, total organic nitrogen were consistent with previous rounds. Dissolved oxygen levels in six monitoring wells are not consistent with previous data gathered at the site.

TREATMENT SYSTEM EVALUATION

An in-situ air sparging (IAS) trench was first considered at this site when it was evaluated as part of a field-scale pilot study conducted by Baker in the summer of 1996 (Baker, 1996). Baker recommended that IAS applied via horizontal injection wells set atop the semi-confining layer at the base of the surficial aquifer should be considered. Such a system was deemed feasible especially if the design included a permeable trench extending the entire depth of the surficial aquifer. The trench concept would allow for uninhibited air flow from the base of the surficial aquifer to the ground surface where it could be monitored. The need for the permeable trench resulted from Baker's observations during the field pilot study of the effects on air flow of lower permeability thin soil lenses. The soil lenses misdirected the air flow away from Baker's monitoring points resulting in poor off-gas management and collection.

Baker also noted the poor site conditions (i.e., saturated ground, difficult site access, limited work space between the edge of the proposed U.S. 17 Jacksonville Bypass right-of-way) in the wetlands area near Brinson Creek and recommended that IAS technology, if used at Site 35, be applied upgradient. At Site 35 the nearest available upgradient location for an IAS field study was approximately 400 feet to the west along the western edge of the proposed right-of-way. With LANTDIV's authorization Baker designed an IAS system in accordance with the recommendations of the pilot study in August 1997. Construction and operations of a portion of the design, deemed Phase I, completed in early 1998. The system has been operating ever since. Construction of Phase II was subject to an evaluation of the Phase I system's effectiveness and its impact on natural attenuation processes at Site 35.

The treatment system data for the time period (January 1999 – March 1999) was unavailable to be documented in this report. However, future Site 35 monitoring reports will include this particular information as it becomes available from the contractor responsible for obtaining it (i.e. the IT Group).

RECOMMENDATIONS

In order to maintain the existing well field and monitor subsurface processes the following are recommended:

- Bollards and well casings should be repaired and painted with weather-resistant paint.
- Deteriorated or missing padlocks should be replaced.
- The existing monitoring program should be continued to assess the impact of seasonal and tidal changes.
- In general, nitrate has been detected at very low frequencies and very low levels site-wide since January 1998. Such low levels are typical of a wetland, such as the one Camp Geiger is constructed on. The collection of additional nitrate data at Site 35 will provides no additional insight into natural attenuative processes that are occurring at Site 35. As such, it is recommended that nitrate analysis be discontinued on samples collected at Site 35.
- Chemetrics™ ampules should be used to monitor dissolved oxygen.

REFERENCES

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

Baker, 1996. Treatment Study Work Plan, Pilot-Scale Evaluation of In-Situ Air Sparging. Marine Corps Base, Camp Lejeune, North Carolina.

TABLES

TABLE 1

SUMMARY OF WELL DEPTHS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Identification	Well Depth (ft bgs)
IR35-MW10S	17.14
IR35-MW10D	31.86
IR35-MW14S	16.16
IR35-MW14D	35.62
IR35-MW31A	14.93
IR35-MW31B	44.25
IR35-MW40B	43.91
IR35-MW43B	42.75
IR35-MW55B	27.36
IR35-MW61A	14.95
IR35-MW62A	16.50
IR35-MW63B	32.00
IR35-MW64B	32.80
IR35-MW65B	33.55

Notes:
bgs - Below ground surface
ft - Feet

TABLE 2

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number (Sample Date)	Measuring Time	Well Volumes	Field Parameters					
			Dissolved Oxygen (mg/L)	Specific Conductance (umhos/cm)	Temperature (^{0}C)	pH (S.U.)	Turbidity (N.T.U.)	Redox (mV)
35-MW10S (01/20/99)	1218	1.0	2.7	318	17.9	7.22	0	61.3
	1230	2.0	2.6	318	17.5	7.17	0	62.7
	1243	3.0	2.4	327	17.4	7.16	0	49.9
35-MW10D (01/20/99)	1106	1.0	0.9	497	19.5	7.08	0	-136.6
	1127	2.0	0.3	496	19.9	7.04	0	-164.8
	1151	3.0	0.4	496	20.2	7.04	0	-180.3
35-MW14S (01/20/99)	0945	1.0	3.6	615	18.2	6.99	10	23.4
	0950	2.0	2.4	605	18.3	6.89	0	26.5
	0958	3.0	1.4	579	18.6	6.81	0	6.3
35-MW14D (01/20/99)	0831	1.0	0.7	466	18.6	7.17	0	-91.3
	0851	2.0	0.4	466	19.3	7.17	0	-109.5
	0917	3.0	0.3	466	19.5	7.16	0	-140.3
35-MW31A (01/20/99)	1019	1.0	2.5	888	17.6	5.96	0	144.9
	1025	2.0	2.3	898	17.6	5.97	0	149.9
	1029	3.0	2.0	903	17.5	5.97	0	153.8
	1032	4.0	2.2	908	17.5	5.98	0	152.1
35-MW31B (01/20/99)	0840	1.0	0.30	474	19.2	7.16	0	-36.0
	0907	2.0	0.08	469	19.6	7.16	0	-44.9
	0940	3.0	0.02	467	20.1	7.16	0	-41.2
35-MW40B (01/20/99)	0847	1.0	8.5	498	20.9	6.57	8.1	-40.4
	0856	1.5	9.8	523	21.1	6.88	4.2	-69.6
	0904	2.0	9.2	524	21.1	6.92	2.5	-95.5
	0912	2.5	9.5	524	20.9	6.95	1.5	-103.6
	0923	3.0	6.3	508	21.2	6.96	1.3	-99.9
35-MW43B (01/20/99)	1031	1.0	9.0	455	19.1	7.05	3.0	-154.2
	1050	1.5	9.1	449	19.2	7.05	2.7	-149.5
	1107	2.0	8.6	446	19.3	7.05	3.5	-149.3
	1127	2.5	5.4	444	19.3	7.05	3.2	-147.4
	1158	3.0	8.9	441	19.4	7.06	2.8	-145.6
35-MW55B (01/20/99)	1512	1.0	0.26	467	18.7	7.19	1	95.0
	1522	1.5	0.16	466	18.7	7.19	0	89.2
	1536	2.0	0.00	464	18.6	7.18	0	82.8
	1540	2.5	0.11	464	18.6	7.18	0	81.7
	1550	3.0	0.10	463	18.5	7.19	0	81.4
	1600	3.5	0.08	462	18.5	7.19	0	80.2
35-MW61A (01/20/99)	1237	1.0	0.65	396	17.7	7.29	26	-82.3
	1244	1.5	0.70	406	17.7	7.27	18	-86.0
	1252	2.0	0.32	410	17.8	7.25	9	-89.4
	1302	2.5	0.34	412	17.9	7.24	6	-92.2
	1313	3.0	0.22	413	18.0	7.24	3	-92.6

TABLE 2 (Continued)

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number (Sample Date)	Measuring Time	Well Volumes	Field Parameters					
			Dissolved Oxygen (mg/L)	Specific Conductance (umhos/cm)	Temperature (^{0}C)	pH (S.U.)	Turbidity (N.T.U.)	Redox (mV)
35-MW62A (01/20/99)	1112	1.0	0.49	465	17.8	7.24	15	-86.4
	1121	1.5	0.33	465	17.9	7.23	9	-87.6
	1131	2.0	1.01	464	17.9	7.22	3	-88.7
	1136	2.5	0.28	464	17.9	7.22	3	-90.9
	1143	3.0	0.31	463	18.0	7.22	0	-92.5
	1149	3.5	0.34	463	18.1	7.23	0	-92.9
35-MW63B (01/20/99)	0934	1.0	0.32	331	16.8	7.59	24	-66.0
	0948	1.5	0.22	331	17.1	7.59	8	-76.8
	0958	2.0	0.21	330	17.2	7.58	2	-79.7
	1011	2.5	0.10	330	17.3	7.58	0	-82.9
	1023	3.0	0.16	331	17.4	7.58	0	-83.6
35-MW64B (01/20/99)	1458	1.0	0.30	334	18.1	7.52	0	-74.4
	1505	1.5	0.06	331	17.9	7.52	0	-81.6
	1513	2.0	0.16	329	17.8	7.52	0	-83.0
	1527	2.5	0.01	330	17.6	7.52	0	-86.4
	1540	3.0	0.02	329	17.7	7.52	0	-87.9
35-MW65B (01/20/99)	1551	1.0	0.60	365	17.3	7.71	0	-48.0
	1605	1.5	0.54	336	17.8	7.68	0	-53.8
	1612	2.0	0.34	326	17.7	7.67	0	-59.4
	1618	2.5	0.27	365	17.7	7.68	0	-61.9
	1623	3.0	0.22	365	17.6	7.68	0	-63.8
	1630	3.5	0.19	365	17.6	7.68	0	-66.6

Notes:

^{0}C = Degrees Centigrade
S.U. = Standard Units
mg/L = milligrams per liter
umhos/cm = micro ohms per centimeter
N.T.U. = Nephlometric Turbidity Units
mV = millivolt

TABLE 3

GROUNDWATER SAMPLING SUMMARY
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Location	Media	TCL Volatiles [1]	Dissolved Gases [2]	Nitrate [3]	Sulafate[4]	TOC [5]	TON [6]	Nitrate/Nitrite [7]	Ammonia [8]	Orthophosphate [9]	Laboratory Sample Identification
35-MW10S	GW	X	X	X	X						IR35-GW10-99A
35-MW10D	GW	X	X	X	X						IR35-GW10IW-99A
35-MW14S	GW	X	X	X	X						IR35-GW14-99A
35-MW14D	GW	X	X	X	X						IR35-GW14IW-99A
35-MW31A	GW	X	X	X	X						IR35-GW31-99A
35-MW31B	GW	X	X	X	X						IR35-GW31IW-99A
35-MW40B	GW	X	X	X	X						IR35-GW40IW-99A
35-MW43B	GW	X	X	X	X						IR35-GW43IW-99A
35-MW55B	GW	X	X	X	X						IR35-GW55IW-99A
35-MW61A	GW	X	X	X	X						IR35-GW61-99A
35-MW62A	GW	X	X	X	X						IR35-GW62-99A
35-MW63B	GW	X	X	X	X						IR35-GW63IW-99A
35-MW64B	GW	X	X	X	X						IR35-GW64IW-99A
35-MW65B	GW	X	X	X	X	X	X	X	X	X	IR35-GW65IW-99A
35-SW01	SW	X									IR35-SW01-99A
35-SW02	SW	X									IR35-SW02-99A
35-SW03	SW	X									IR35-SW03-99A

Notes:

(1) Target Compound List Volatile Organics by U.S. Environmental Protection Agency (EPA) Method 8260A. Speciate cis-, trans- 1,2-DCE.

(2) Method RSK 175 .

(3) IC Method 300.0.

(4) IC Method 300.0.

(5) Total Organic Carbon Method 9060 .

(6) Total Organic Nitrogen U.S. Environmental Protection Agency (EPA) Method 351.1/350.2.

(7) IC Method 300.0.

(8) U.S. Environmental Protection Agency (EPA) Method 350.2.

(9) IC Method E300.0.

GW = Groundwater
SW = Surface Water
X = Requested Analysis

TABLE 4

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation [1]	SWL 01/20/99	SWE 01/20/99
MP03D	16.26	9.48	6.78
MP03S	16.27	9.24	7.03
MP05D	16.10	9.00	7.10
MP05S	16.12	9.34	6.78
MP06D	15.72	8.38	7.34
MP06S	15.68	8.70	6.98
35-MW09A	18.92	NA	NA
35-MW09B	18.88	NA	NA
35-MW10D	19.01	5.56*	13.45*
35-MW10S	18.99	7.44	11.55
35-MW14D	17.73	10.85	6.88
35-MW14S	17.78	10.85	6.93
35-MW23A	8.74	5.60	3.14
35-MW23B	8.74	4.58	4.16
35-MW29A	20.62	7.73	12.89
35-MW29B	20.28	8.45*	11.83*
35-MW30A	18.38	5.54	12.84
35-MW30B	18.38	5.79	12.59
35-MW31A	18.32	10.32	8.00
35-MW31B	18.46	10.63	7.83
35-MW32A	18.23	7.98	10.25
35-MW32B	18.75	9.45	9.30
35-MW34A	16.77	5.56	11.21
35-MW34B	16.76	8.57	8.19
35-MW37A	20.30	4.95	15.35
35-MW37B	20.33	6.92	13.41
35-MW38A	19.74	6.62	13.12
35-MW38B	20.00	6.57	13.43
35-MW39B	18.83	5.46	13.37
35-MW40B	17.59	5.52	12.07
35-MW42B	15.12	NA	NA
35-MW43B	15.01	1.43	13.58
35-MW47A	NS	2.82	NA
35-MW47B	NS	2.21	NA
35-MW55A	NS	2.12	NA
35-MW55B	NS	3.08	NA
35-MW61A	4.49	2.57	1.92
35-MW62A	5.39	3.65	1.74

TABLE 4 (Continued)

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation [1]	SWL 01/20/99	SWE 01/20/99
35-MW63B	4.73	2.10	2.63
35-MW64B	4.77	2.30	2.47
35-MW65B	5.08	2.95	2.13
35-MW66A	15.66	7.56	8.10
35-MW67A	15.28	NA	NA
35-MW68B	15.86	6.20*	9.66*
35-MW69B	19.83	10.2	9.63
35-MW70B	19.26	5.92	13.34
35-MW71B	12.70	1.43	11.27

Notes:

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

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

* This data is not consistent with previous findings aquired by Baker. Data will be collected and evaluated for these wells in future quarters.

TABLE 5

TRIP BLANK ANALYTICAL RESULTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR35-TB01-99A
DATE SAMPLED	1/20/99
VOLATILES (ug/L)	
1,1,1-Trichloroethane	5 U
1,1,2,2-Tetrachloroethane	5 U
1,1,2-Trichloroethane	5 U
1,1-Dichloroethane	5 U
1,1-Dichloroethene	5 U
1,2-Dichloroethane	5 U
1,2-Dichloropropane	5 U
2-Butanone	10 U
2-Hexanone	10 U
4-Methyl-2-pentanone	10 U
Acetone	10 U
Benzene	5 U
Bromodichloromethane	5 U
Bromoform	5 U
Bromomethane	5 U
Carbon disulfide	5 U
Carbon tetrachloride	5 U
Chlorobenzene	5 U
Chloroethane	5 U
Chloroform	5 U
Chloromethane	5 U
cis-1,2-Dichloroethene	5 U
cis-1,3-Dichloropropene	5 U
Dibromochloromethane	5 U
Ethylbenzene	5 U
Methylene chloride	5 U
Styrene	5 U
Tetrachloroethene	5 U
Toluene	5 U
trans-1,2-Dichloroethene	5 U
trans-1,3-Dichloropropene	5 U
Trichloroethene	5 U
Vinyl chloride	5 U
Xylenes	5 U
DISSOLVED GASES	
Ethane (ug/ml)	0.01 U
Ethene (ug/ml)	0.01 U
Methane (ug/ml)	0.01 U

U = Not detected
ug/L = Micrograms per liter
ug/ml = Micrograms per milliliter

TABLE 6

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Contaminants or Analytes	Comparison Criteria		Concentration Range		Location of Maximum Detection	Detection Frequency	Detected Above	
		NCWQS	MCL	Min.	Max.			NCWQS	MCL
Volatile Organics	1,1,1-Trichloroethane	200	200	7 J	7 J	35-GW31IW	1/14	0	0
	1,1,2,2-Tetrachloroethane	NE	NE	10	10	35-GW55IW	1/14	NA	NA
	1,1-Dichloroethene	7	7	4 J	6	35-GW55IW	2/14	0	0
	cis-1,2-Dichloroethene	70	70	5 J	750	35-GW55IW	9/14	7	7
	trans-1,2-Dichloroethene	NE	100	8	180	35-GW55IW	7/14	NA	1
	Trichloroethene	NE	5	4 J	820	35-GW55IW	8/14	NA	7
	Vinyl chloride	0.015	2	6	36	35-GW55IW	4/14	4	4

Notes:

Organic concentrations presented in micrograms per liter (ug/L) or parts per billion.

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR35-GW10-99A	IR35-GW10IW-99A	IR35-GW14-99A	IR35-GW14IW-99A	IR35-GW31-99A	IR35-GW31IW-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99	1/20/99	1/20/99	1/20/99
VOLATILES (ug/L)						
1,1,1-Trichloroethane	5 U	5 U	25 U	5 U	5 U	7 J
1,1,2,2-Tetrachloroethane	5 U	5 U	25 U	5 U	5 U	10 U
1,1-Dichloroethene	5 U	4 J	25 U	5 U	5 U	10 U
cis-1,2-Dichloroethene	5 U	350	290	140	5 U	180
trans-1,2-Dichloroethene	5 U	33	30	15	5 U	27
Trichloroethene	5 U	190	310	83	5 U	100
Vinyl chloride	5 U	11	25 U	5 U	5 U	10 U

J = Estimated Result
U = Not detected
ug/L = micrograms per liter

TABLE 7 (Continued)

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR35-GW40IW-99A	IR35-GW43IW-99A	IR35-GW55IW-99A	IR35-GW61-99A	IR35-GW62-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99	1/20/99	1/20/99
VOLATILES (ug/L)					
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	10	5 U	5 U
1,1-Dichloroethene	5 U	5 U	6	5 U	5 U
cis-1,2-Dichloroethene	190	5 U	750	32	5 J
trans-1,2-Dichloroethene	8	5 U	180	5 U	5 U
Trichloroethene	8	5 U	820	4 J	5 U
Vinyl chloride	6	5 U	36	5 U	5 U

J = Estimated Result
U = Not detected
ug/L = micrograms per liter

TABLE 7 (Continued)

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR35-GW63IW-99A	IR35-GW64IW-99A	IR35-GW65IW-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99
VOLATILES (ug/L)			
1,1,1-Trichloroethane	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U
cis-1,2-Dichloroethene	5 U	200	5 U
trans-1,2-Dichloroethene	5 U	22	5 U
Trichloroethene	5 U	110	5 U
Vinyl chloride	5 U	11	5 U

J = Estimated Result
U = Not detected
ug/L = micrograms per liter

TABLE 8

VOLATILE ORGANICS IN GROUNDWATER
JANUARY 1999 - MARCH 1999
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Monitoring Well/ Volatile Organic Compound	MCL	NCWQS	January 1999
35-GW10IW			
1,1-Dichloroethene	7.0	7.0	4 J
cis-1,2-Dichloroethene	70	70	350
trans-1,2-Dichloroethene	NE	100	33
Trichlorothene	5.0	2.8	190
Vinyl chloride	2.0	0.015	11
35-GW14			
cis-1,2-Dichloroethene	70	70	290
trans-1,2-Dichloroethene	NE	100	30
Trichlorothene	5.0	2.8	310
35-GW14IW			
cis-1,2-Dichloroethene	70	70	140
trans-1,2-Dichloroethene	NE	100	15
Trichlorothene	5.0	2.8	83
35-GW31IW			
1,1,1-Trichloroethane	200	200	7 J
cis-1,2-Dichloroethene	70	70	180
trans-1,2-Dichloroethene	NE	100	27
Trichlorothene	5.0	2.8	100
35-GW40IW			
cis-1,2-Dichloroethene	70	70	190
trans-1,2-Dichloroethene	NE	100	8
Trichlorothene	5.0	2.8	8
Vinyl chloride	2.0	0.015	6
35-GW55IW			
1,1,2,2-Tetrachloroethane	NE	NE	10
1,1-Dichloroethene	7.0	7.0	6
cis-1,2-Dichloroethene	70	70	750
trans-1,2-Dichloroethene	NE	100	180
Trichlorothene	5.0	2.8	820
Vinyl chloride	2.0	0.015	36
35-GW61			
cis-1,2-Dichloroethene	70	70	32
Trichlorothene	5.0	2.8	4 J
35-GW62			
cis-1,2-Dichloroethene	70	70	5 J

TABLE 8 (Continued)

VOLATILE ORGANICS IN GROUNDWATER
JANUARY 1999 - MARCH 1999
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Monitoring Well/ Volatile Organic Compound	MCL	NCWQS	January 1999
35-GW64IW			
cis-1,2-Dichloroethene	70	70	200
trans-1,2-Dichloroethene	NE	100	22
Trichlorothene	5.0	2.8	110
Vinyl chloride	2.0	0.015	11

Notes:

Concentrations expressed in micrograms per liter (ug/L) or parts per billion.

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

NCWQS = North Carolina Water Quality Standards. Values Applicable to Groundwater (North Carolina Administrative Code, Title 15A, Subchapter 2L).

NE = Not Established

TABLE 9

NATURAL ATTENUATION FIELD TEST RESULTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Sample ID	Ferrous Iron (mg/L) January 1999	$CaCO_3$ (mg/L) January 1999	Chloride (mg/L) January 1999
35-MW10S	0.23	216	5.4
35-MW10D	0.92	313	6.3
35-MW14S	3.03	310	12.7
35-MW14D	0.65	287	6.3
35-MW31A	0.12	45.6	9.9
35-MW31B	0.56	283	5.5
35-MW40B	0.27	221	13.5
35-MW43B	2.17	194	9.0
35-MW55B	0.00	261	5.9
35-MW61A	1.00	235	9.8
35-MW62A	1.28	267	6.8
35-MW63B	0.04	184	8.3
35-MW64B	0.16	205	9.5
35-MW65B	0.01	191	16.4

TABLE 10

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR35-GW10-99A	IR35-GW10IW-99A	IR35-GW14-99A	IR35-GW14IW-99A	IR35-GW31-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99	1/20/99	1/20/99
NATURAL ATTENUATION PARAMETERS					
Methane (ug/ml)	0.07099	2.4	0.48	0.65	0.095
Nitrogen, nitrate (mg/L)	0.1 U	0.1 U	0.1 U	0.1 U	1.8
Sulfate (mg/L)	23	4.9	17	10	36

U = Not detected
mg/L = milligrams per liter
ug/ml = micrograms per milliliter

TABLE 10 (Continued)

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR35-GW31IW-99A	IR35-GW40IW-99A	IR35-GW43IW-99A	IR35-GW55IW-99A	IR35-GW61-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99	1/20/99	1/20/99
NATURAL ATTENUATION PARAMETERS					
Methane (ug/ml)	0.2	0.016	0.07	0.066	0.093
Nitrogen, nitrate (mg/L)	0.28	0.1 U	0.1 U	0.42	0.1 U
Sulfate (mg/L)	14	16	35	26	10

U = Not detected
mg/L = milligrams per liter
ug/ml = micrograms per milliliter

TABLE 10 (Continued)

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR35-GW62-99A	IR35-GW63IW-99A	IR35-GW64IW-99A	IR35-GW65IW-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99	1/20/99
NATURAL ATTENUATION PARAMETERS				
Methane (ug/ml)	0.36	0.01	0.02	0.01 U
Nitrogen, nitrate (mg/L)	0.1 U	0.1 U	0.1 U	0.1 U
Sulfate (mg/L)	14	2.3	7.7 U	2.6

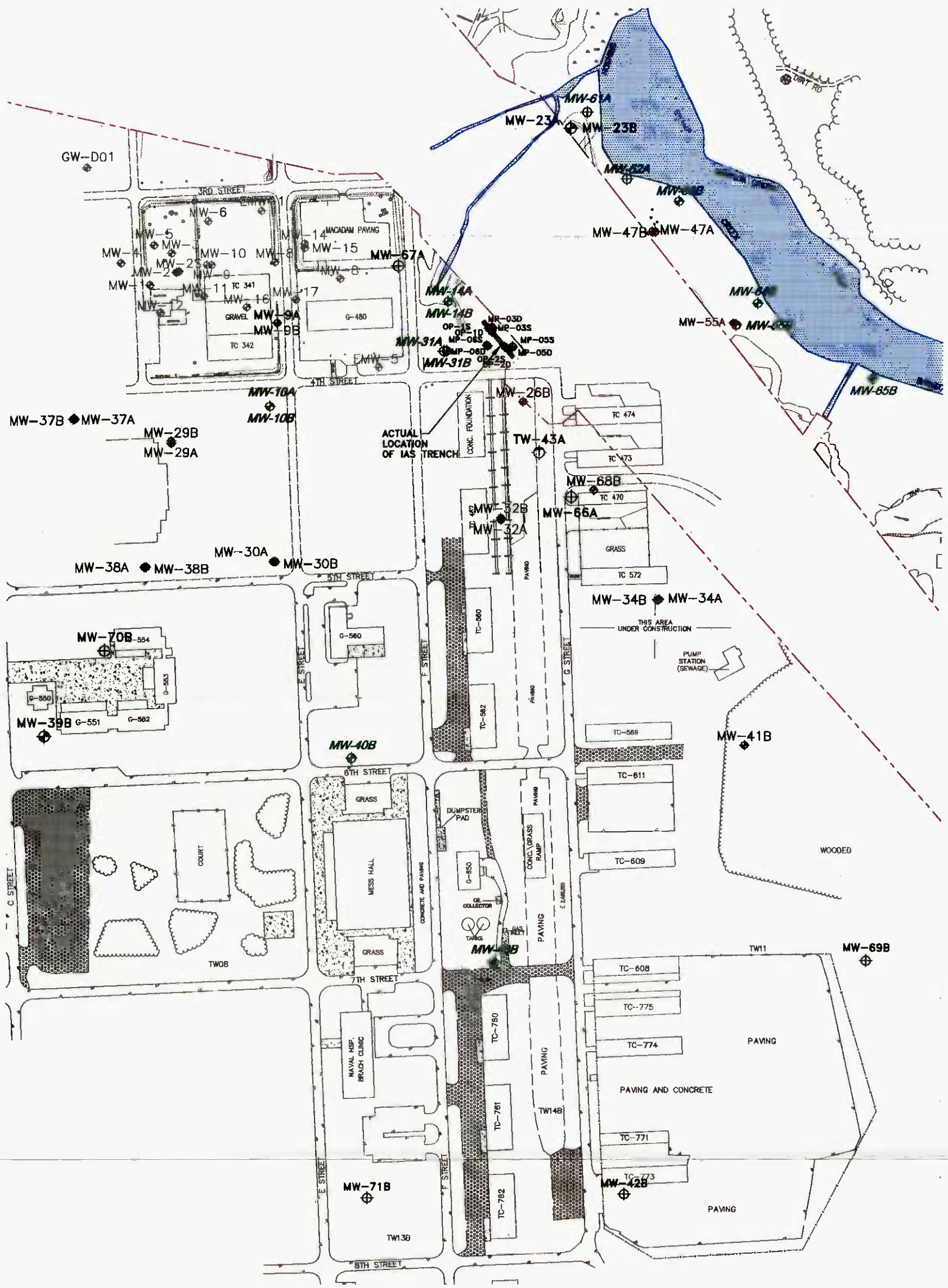
U = Not detected
mg/L = milligrams per liter
ug/ml = micrograms per milliliter

TABLE 11

NATURAL ATTENUATION ANALYTICAL RESULTS FOR GROUNDWATER
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Monitoring Well/Analytical Results	January 1999
Natural Attenuation Parameters (mg/L)	
IR35-GW10	
Sulfate	23
Methane	0.00007
IR35-GW10IW	
Sulfate	4.9
Methane	0.0024
IR35-GW14	
Sulfate	17
Methane	0.00048
IR35-GW14IW	
Sulfate	10
Methane	0.00065
IR35-GW31	
Nitrogen, Nitrate	1.8
Sulfate	36
Methane	0.000095
IR35-GW31IW	
Nitrogen, Nitrate	0.28
Sulfate	14
Methane	0.0002
IR35-GW40IW	
Sulfate	16
Methane	0.000016
IR35-GW43IW	
Sulfate	35
Methane	0.00007
IR35-GW55IW	
Nitrogen, Nitrate	0.42
Sulfate	26
Methane	0.000066
IR35-GW61	
Sulfate	10
Methane	0.000093
IR35-GW62	
Sulfate	14
Methane	0.00036
IR35-GW63IW	
Sulfate	2.3
Methane	0.00001
IR35-GW64IW	
Methane	0.00002
IR35-GW65IW	
Sulfate	2.6

FIGURES



NOTE:
-WELLS SHOWN IN BLACK REGULAR FONT ARE NOT INCLUDED IN THE MONITORING PROGRAM.

367200MR

Baker
Baker Environmental, Inc.

LEGEND

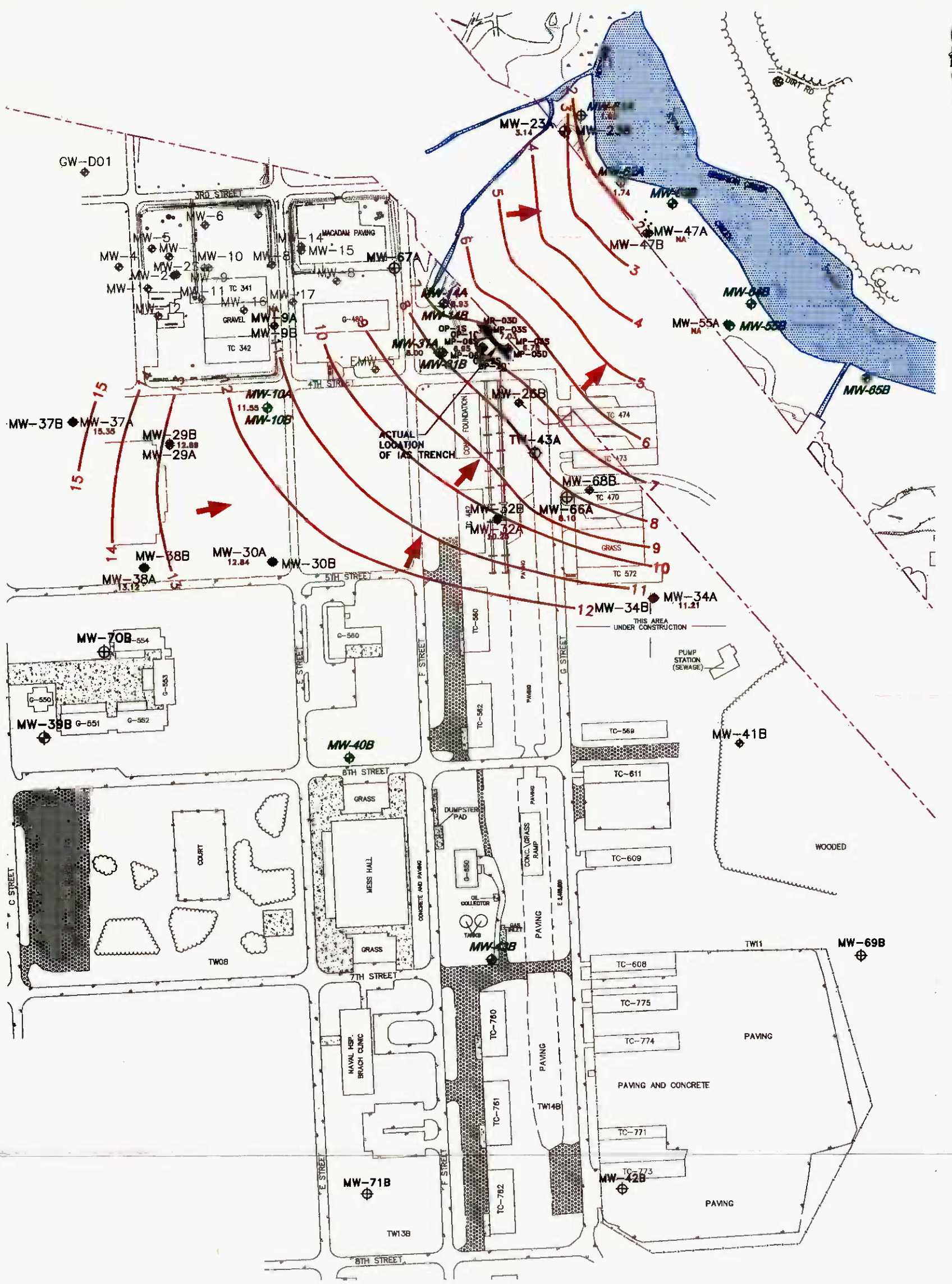
- ⊕ – MONITORING WELLS INCLUDED IN SAMPLING PLAN
- ⊕ – SHALLOW GROUNDWATER MONITORING WELL
- ◆ – INTERMEDIATE GROUNDWATER MONITORING WELL
- – – – – US ROUTE 17 BYPASS RIGHT-OF-WAY

SOURCE: LANIER AND ASSOCIATES

FIGURE 1
MONITORING WELL LOCATION MAP
OPERABLE UNIT No. 10 – SITE 35
MONITORING AND O&M SUPPORT, CTO-0120

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

02329 IIBIV



NOTE:
-WELLS SHOWN IN BLACK REGULAR FONT ARE NOT INCLUDED IN THE MONITORING PROGRAM.

240 0 120 240
1 inch = 240 ft.

367204MR

Baker
Baker Environmental, Inc.

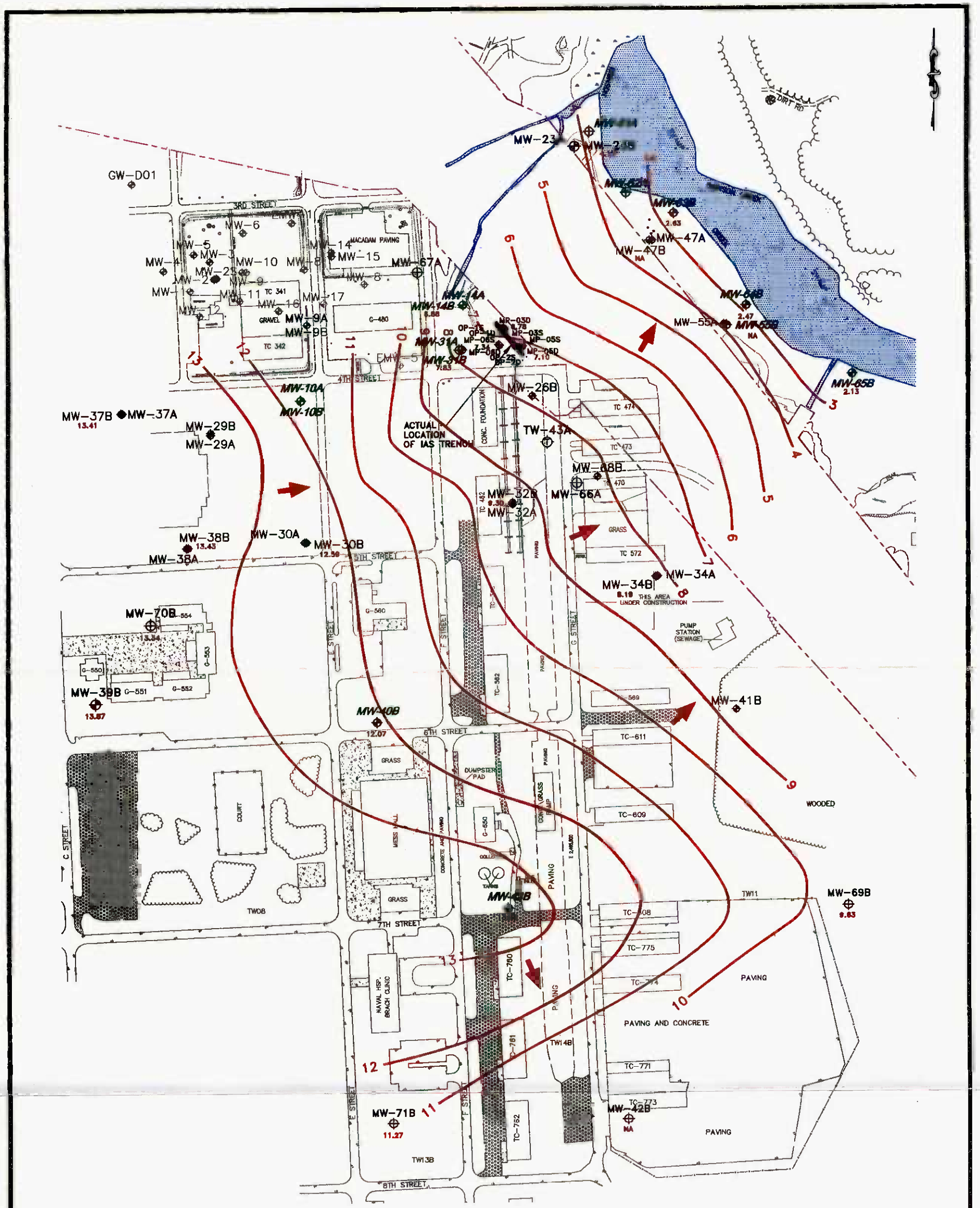
LEGEND

- ⊕ – MONITORING WELLS INCLUDED IN SAMPLING PLAN
- ⊕ – SHALLOW GROUNDWATER MONITORING WELL
- ◆ – INTERMEDIATE GROUNDWATER MONITORING WELL
- 1.74 – GROUNDWATER ELEVATION (FEET)
- ——— – GROUNDWATER CONTOUR LINE
- ➡ – GROUNDWATER FLOW DIRECTION
- – – – – US ROUTE 17 BYPASS RIGHT-OF-WAY

SOURCE: LANIER AND ASSOCIATES

FIGURE 2
SHALLOW GROUNDWATER CONTOUR MAP
OPERABLE UNIT No. 10 – SITE 35
MONITORING AND O&M SUPPORT, CTO-0120

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



NOTE:
–WELLS SHOWN IN BLACK REGULAR FONT ARE NOT INCLUDED IN THE MONITORING PROGRAM.

240 0 120 240
1 inch = 240 ft.

Baker
Baker Environmental, Inc.

367205MR

LEGEND

- ⊕ – MONITORING WELLS INCLUDED IN SAMPLING PLAN
- ⊕ – SHALLOW GROUNDWATER MONITORING WELL
- ◆ – INTERMEDIATE GROUNDWATER MONITORING WELL
- 2.13 – GROUNDWATER ELEVATION (FEET)
- ——— – GROUNDWATER CONTOUR LINE
- ➡ – GROUNDWATER FLOW DIRECTION
- – – – – US ROUTE 17 BYPASS RIGHT-OF-WAY

SOURCE: LANIER AND ASSOCIATES

FIGURE 3
INTERMEDIATE GROUNDWATER CONTOUR MAP
OPERABLE UNIT No. 10 – SITE 35
MONITORING AND O&M SUPPORT, CTO–0120

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

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

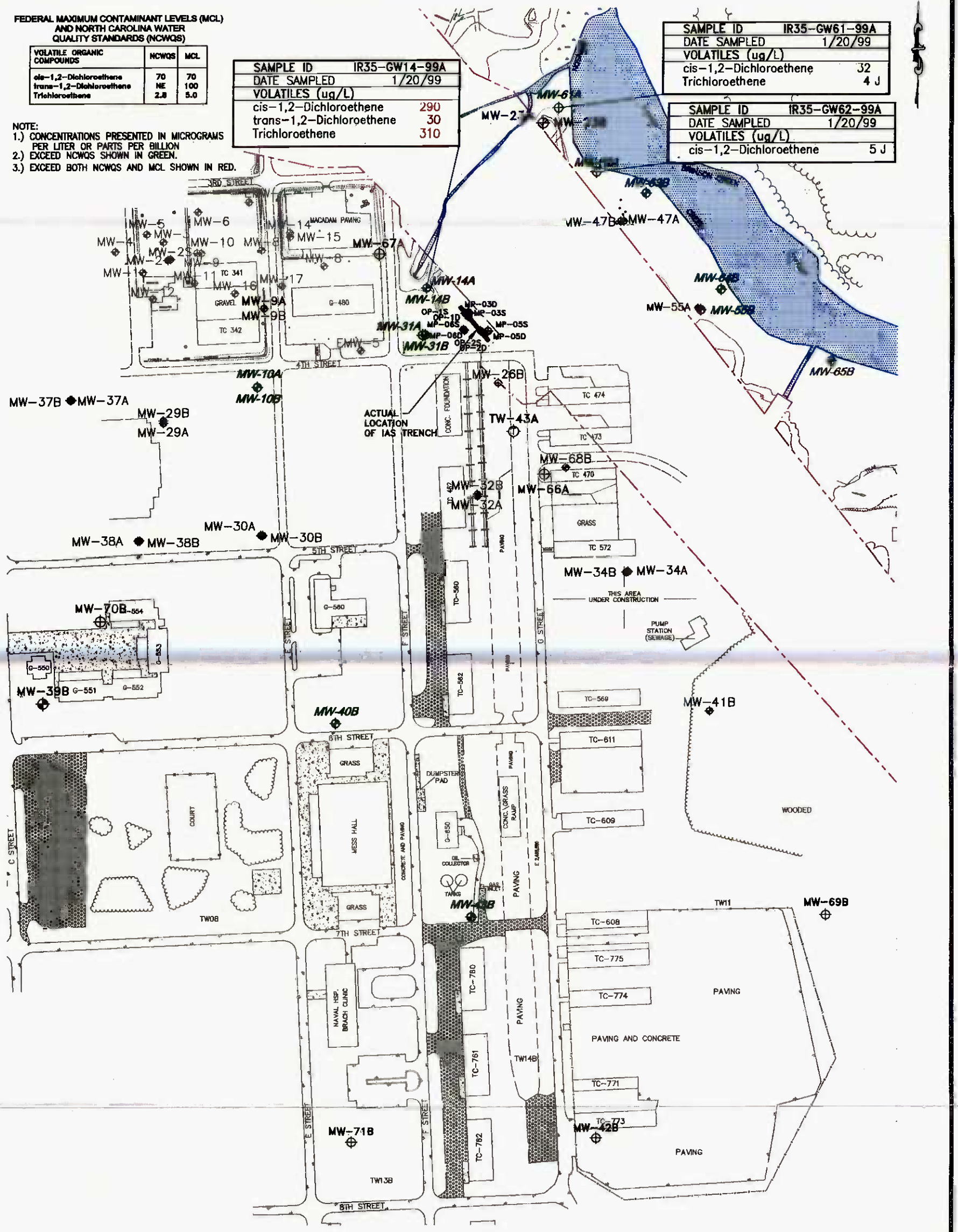
VOLATILE ORGANIC COMPOUNDS	NCWQS	MCL
cis-1,2-Dichloroethene	70	70
trans-1,2-Dichloroethene	NE	100
Trichloroethene	2.8	5.0

NOTE:
1.) CONCENTRATIONS PRESENTED IN MICROGRAMS PER LITER OR PARTS PER BILLION
2.) EXCEED NCWQS SHOWN IN GREEN.
3.) EXCEED BOTH NCWQS AND MCL SHOWN IN RED.

SAMPLE ID	IR35-GW14-99A
DATE SAMPLED	1/20/99
VOLATILES (ug/L)	
cis-1,2-Dichloroethene	290
trans-1,2-Dichloroethene	30
Trichloroethene	310

SAMPLE ID	IR35-GW61-99A
DATE SAMPLED	1/20/99
VOLATILES (ug/L)	
cis-1,2-Dichloroethene	32
Trichloroethene	4 J

SAMPLE ID	IR35-GW62-99A
DATE SAMPLED	1/20/99
VOLATILES (ug/L)	
cis-1,2-Dichloroethene	5 J



NOTE:
-WELLS SHOWN IN BLACK REGULAR FONT ARE NOT INCLUDED IN THE MONITORING PROGRAM.

240 0 120 240
1 inch = 240 ft.

367206MR

Baker
Baker Environmental, Inc.

LEGEND

- ⊕ – MONITORING WELLS INCLUDED IN SAMPLING PLAN
- ⊕ – SHALLOW GROUNDWATER MONITORING WELL
- ◆ – INTERMEDIATE GROUNDWATER MONITORING WELL
- – – – – US ROUTE 17 BYPASS RIGHT-OF-WAY

SOURCE: LANIER AND ASSOCIATES

FIGURE 4
VOLATILE ORGANIC COMPOUNDS SHALLOW SURFICIAL AQUIFER OPERABLE UNIT No. 10 – SITE 35 MONITORING AND O&M SUPPORT, CTO-0120
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

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

VOLATILE ORGANIC COMPOUNDS	NCWQS	MCL
1,1,2,2–Tetrachloroethane	NE	NE
1,1,1–Trichloroethane	200	200
cis–1,2–Dichloroethene	70	70
trans–1,2–Dichloroethene	NE	100
1,1–Dichloroethene	7	7
Trichloroethene	2.8	5.0
Vinyl Chloride	0.015	2.0

NOTE:
1.) CONCENTRATIONS PRESENTED IN MICROGRAMS PER LITER OR PARTS PER BILLION
2.) EXCEED NCWQS SHOWN IN GREEN.
3.) EXCEED BOTH NCWQS AND MCL SHOWN IN RED.

SAMPLE ID	IR35–GW14IW–99A
DATE SAMPLED	1/20/99
VOLATILES (ug/L)	
cis–1,2–Dichloroethene	140
trans–1,2–Dichloroethene	15
Trichloroethene	83

SAMPLE ID	IR35–GW64IW–99A
DATE SAMPLED	1/20/99
VOLATILES (ug/L)	
cis–1,2–Dichloroethene	200
trans–1,2–Dichloroethene	22
Trichloroethene	110
Vinyl chloride	11

SAMPLE ID	IR35–GW10IW–99A
DATE SAMPLED	1/20/99
VOLATILES (ug/L)	
1,1–Dichloroethene	4 J
cis–1,2–Dichloroethene	350
trans–1,2–Dichloroethene	33
Trichloroethene	190
Vinyl chloride	11

SAMPLE ID	IR35–GW55IW–99A
DATE SAMPLED	1/20/99
VOLATILES (ug/L)	
1,1,2,2–Tetrachloroethane	10
1,1–Dichloroethene	6
cis–1,2–Dichloroethene	750
trans–1,2–Dichloroethene	180
Trichloroethene	820
Vinyl chloride	36

SAMPLE ID	IR35–GW31IW–99A
DATE SAMPLED	1/20/99
VOLATILES (ug/L)	
1,1,1–Trichloroethane	7 J
cis–1,2–Dichloroethene	180
trans–1,2–Dichloroethene	27
Trichloroethene	100

SAMPLE ID	IR35–GW40IW–99A
DATE SAMPLED	1/20/99
VOLATILES (ug/L)	
cis–1,2–Dichloroethene	190
trans–1,2–Dichloroethene	8
Trichloroethene	8
Vinyl chloride	6

NOTE:
–WELLS SHOWN IN BLACK REGULAR FONT ARE NOT INCLUDED IN THE MONITORING PROGRAM.

240 0 120 240
1 inch = 240 ft.

367207MR

Baker
Baker Environmental, Inc.

LEGEND
- ⊕ – MONITORING WELLS INCLUDED IN SAMPLING PLAN
- ⊕ – SHALLOW GROUNDWATER MONITORING WELL
- ◆ – INTERMEDIATE GROUNDWATER MONITORING WELL
- – – – – US ROUTE 17 BYPASS RIGHT–OF–WAY

SOURCE: LANIER AND ASSOCIATES

FIGURE 5
VOLATILE ORGANIC COMPOUNDS
INTERMEDIATE SURFICIAL AQUIFER
OPERABLE UNIT No. 10 – SITE 35
MONITORING AND O&M SUPPORT, CTO–0120
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

SAMPLE ID	IR35-GW62-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.36
Sulfate (mg/L)	14

SAMPLE ID	IR35-GW14-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.48
Sulfate (mg/L)	17

SAMPLE ID	IR35-GW10-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.07099
Sulfate (mg/L)	23

SAMPLE ID	IR35-GW61-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.093
Sulfate (mg/L)	10

SAMPLE ID	IR35-GW31-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.095
Nitrogen, nitrate (mg/L)	1.8
Sulfate (mg/L)	36

NOTE:
-WELLS SHOWN IN BLACK REGULAR FONT ARE NOT INCLUDED IN THE MONITORING PROGRAM.

240 0 120 240
1 inch = 240 ft.

367208MR

Baker
Baker Environmental, Inc.

LEGEND

- MONITORING WELLS INCLUDED IN SAMPLING PLAN
- SHALLOW GROUNDWATER MONITORING WELL
- INTERMEDIATE GROUNDWATER MONITORING WELL
- US ROUTE 17 BYPASS RIGHT-OF-WAY

SOURCE: LANIER AND ASSOCIATES

FIGURE 6
NATURAL ATTENUATION PARAMETERS
SHALLOW SURFICIAL AQUIFER
OPERABLE UNIT No. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0120
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

SAMPLE ID	IR35-GW63IW-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.01
Sulfate (mg/L)	2.3

SAMPLE ID	IR35-GW64IW-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.02

SAMPLE ID	IR35-GW55IW-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.066
Nitrogen, nitrate (mg/L)	0.42
Sulfate (mg/L)	26

SAMPLE ID	IR35-GW14IW-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.65
Sulfate (mg/L)	10

SAMPLE ID	IR35-GW10IW-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	2.4
Sulfate (mg/L)	4.9

SAMPLE ID	IR35-GW31IW-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.2
Nitrogen, nitrate (mg/L)	0.28
Sulfate (mg/L)	14

SAMPLE ID	IR35-GW65IW-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Sulfate (mg/L)	2.6

SAMPLE ID	IR35-GW40IW-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.016
Sulfate (mg/L)	16

SAMPLE ID	IR35-GW43IW-99A
DATE SAMPLED	1/20/99
NATURAL ATTENUATION PARAMETERS	
Methane (ug/mL)	0.07
Sulfate (mg/L)	35

MW-23A MW-23B MW-65A MW-65B MW-47A MW-47B MW-55A MW-55B MW-67A MW-14A MW-14B MW-31A MW-31B MW-10A MW-10B MW-37A MW-37B MW-26B TW-43A MW-68B MW-66A MW-32A MW-32B MW-30A MW-30B MW-38A MW-38B MW-70B MW-39B MW-40B MW-34A MW-34B MW-29A MW-29B MW-41B MW-69B MW-71B MW-42B

ACTUAL LOCATION OF IAS TRENCH

NOTE:
-WELLS SHOWN IN BLACK REGULAR FONT ARE NOT INCLUDED IN THE MONITORING PROGRAM.

240 0 120 240
1 inch = 240 ft.

387209MR

Baker
Baker Environmental, Inc.

LEGEND

- ⊕ – MONITORING WELLS INCLUDED IN SAMPLING PLAN
- ⊕ – SHALLOW GROUNDWATER MONITORING WELL
- ◆ – INTERMEDIATE GROUNDWATER MONITORING WELL
- – – – – US ROUTE 17 BYPASS RIGHT-OF-WAY

SOURCE: LANIER AND ASSOCIATES

FIGURE 7
NATURAL ATTENUATION PARAMETERS INTERMEDIATE SURFICIAL AQUIFER OPERABLE UNIT No. 10 – SITE 35 MONITORING AND O&M SUPPORT, CTO-0120
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

ATTACHMENTS

ATTACHMENT A
CHAIN-OF-CUSTODY DOCUMENTATION

COC 36708-19A

Company Name: Baker Environmental	Project Manager or Contact: Tom Trebilcock Phone: (412)269-2015
Project No. / Dept.: / Task:	Project Name: Camp Lejeune - LTM
Sample Storage Location:	ATO Number:
Page 1 of 1	Report #:

Chain of Custody Record

EA Laboratories
19 Loveton Circle
Sparks, MD 21152
Telephone: (410) 771-4920
Fax: (410) 771-4407

Report Deliverables: 1 2 3 4 D E
EDD: Yes/No
DUE TO CLIENT: _____

1999 Date	Time	Water	Soil	Sample Identification 19 Characters	No. of Containers	TCL Volatiles 8260A	Dissolved Gases RSK 175	Nitrate 300.0	TOC Walkley Black	Nitrite 300.0	NH_3 350.2	Orthophosphate 300.0	Sulfate 300.0	TON 351.1/350.2			EA Labs Accession Number	Remarks
1/20	0945	X		IR351-GW161IW-99A	6	X	X	X					X					LPM:
1/20	0925	X		IR351-GW14IW-99A	6	X	X	X					X					
1/20	1000	X		IR351-GW141-99A	6	X	X	X					X					
1/20	1035	X		IR351-GW131-99A	6	X	X	X					X					
1/20	1145	X		IR351-TRIP01-99A	3	X												
1/20	1200	X		IR351-GW162-99A	6	X	X	X					X					
1/20	0925	X		IR351-GW10IW-99A	6	X	X	X					X					
1/20	1150	X		IR351-GW13IW-99A	6	X	X	X					X					
1/20	1030	X		IR351-GW163IW-99A	6	X	X	X					X					
1/20	1245	X		IR351-GW19-99A	6	X	X	X					X					
1/20	1200	X		IR351-GW10IW-99A	6	X	X	X					X					
1/20	1320	X		IR351-GW161-99A	6	X	X	X					X					
1/20	1306	X		IR351-SW01-99A	3	X												
1/20	1510	X		IR351-SW02-99A	3	X												
1/20	1545	X		IR351-GW164IW-99A	6	X	X	X					X					
1/20	1630	X		IR351-SW03-99A	3	X												
1/20	1640	X		IR351-GW151IW-99A	7	X	X	X	X	X	X	X	X	X				
1/20	1600	X		IR351-GW151IW-99A	6	X	X	X					X					

Samples by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature) Ellen Blackie	Date/Time 1/21/99 1730	Received by Laboratory: (Signature)	Date/Time	Airbill Number: 806677591462	Sample Shipped by: (Circle) Fed Ex. Puro. UPS Hand Carried Other:

Cooler Temp: ____C pH: ☐ Yes ☐ No Comments: Custody Seals Intact ☐ Yes ☐ No

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

WHITE—EA Laboratories YELLOW—EA Laboratories PINK—Project Manager *Shaded Areas for Lab Use Only*

ATTACHMENT B
MONITORING PROGRAM ANALYTICAL RESULTS

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR35-GW10-99A	IR35-GW10IW-99A	IR35-GW14-99A	IR35-GW14IW-99A	IR35-GW31-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99	1/20/99	1/20/99
VOLATILES (ug/L)					
1,1,1-Trichloroethane	5 U	5 U	25 U	5 U	5 U
1,1,2,2-Tetrachloroethan	5 U	5 U	25 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	52 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	25 U	5 U	5 U
1,1-Dichloroethene	5 U	4 J	25 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	25 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	25 U	5 U	5 U
2-Butanone	10 U	10 U	50 U	10 U	10 U
2-Hexanone	10 U	10 U	50 U	10 U	10 U
4-Methyl-2-pentanone	10 U	10 U	50 U	10 U	10 U
Acetone	10 U	10 U	50 U	10 U	10 U
Benzene	5 U	5 U	25 U	5 U	5 U
Bromodichloromethane	5 U	5 U	25 U	5 U	5 U
Bromoform	5 U	5 U	25 U	5 U	5 U
ıomethane	5 U	5 U	25 U	5 U	5 U
Carbon disulfide	5 U	5 U	25 U	5 U	5 U
Carbon tetrachloride	5 U	5 U	25 U	5 U	5 U
Chlorobenzene	5 U	5 U	25 U	5 U	5 U
Chloroethane	5 U	5 U	25 U	5 U	5 U
Chloroform	5 U	5 U	25 U	5 U	5 U
Chloromethane	5 U	5 U	25 U	5 U	5 U
cis-1,2-Dichloroethene	5 U	350	290	140	5 U
cis-1,3-Dichloropropene	5 U	5 U	25 U	5 U	5 U
Dibromochloromethane	5 U	5 U	25 U	5 U	5 U
Ethylbenzene	5 U	5 U	25 U	5 U	5 U
Methylene chloride	5 U	5 U	25 U	5 U	5 U
Styrene	5 U	5 U	25 U	5 U	5 U
Tetrachloroethene	5 U	5 U	25 U	5 U	5 U
Toluene	5 U	5 U	25 U	5 U	5 U
trans-1,2-Dichloroethene	5 U	33	30	15	5 U
trans-1,3-Dichloropropen	5 U	5 U	25 U	5 U	5 U
Trichloroethene	5 U	190	310	83	5 U
Vinyl chloride	5 U	11	25 U	5 U	5 U
Xylenes	5 U	5 U	25 U	5 U	5 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR35-GW31IW-99A	IR35-GW40IW-99A	IR35-GW43IW-99A	IR35-GW55IW-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99	1/20/99
VOLATILES (ug/L)				
1,1,1-Trichloroethane	7 J	5 U	5 U	5 U
1,1,2,2-Tetrachloroethan	10 U	5 U	5 U	10
1,1,2-Trichloroethane	10 U	5 U	5 U	5 U
1,1-Dichloroethane	10 U	5 U	5 U	5 U
1,1-Dichloroethene	10 U	5 U	5 U	6
1,2-Dichloroethane	10 U	5 U	5 U	5 U
1,2-Dichloropropane	10 U	5 U	5 U	5 U
2-Butanone	20 U	10 U	10 U	10 U
2-Hexanone	20 U	10 U	10 U	10 U
4-Methyl-2-pentanone	20 U	10 U	10 U	10 U
Acetone	20 U	10 U	10 U	10 U
Benzene	10 U	5 U	5 U	5 U
Bromodichloromethane	10 U	5 U	5 U	5 U
Bromoform	10 U	5 U	5 U	5 U
Bromomethane	10 U	5 U	5 U	5 U
Carbon disulfide	10 U	5 U	5 U	5 U
Carbon tetrachloride	10 U	5 U	5 U	5 U
Chlorobenzene	10 U	5 U	5 U	5 U
Chloroethane	10 U	5 U	5 U	5 U
Chloroform	10 U	5 U	5 U	5 U
Chloromethane	10 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	180	190	5 U	750
cis-1,3-Dichloropropene	10 U	5 U	5 U	5 U
Dibromochloromethane	10 U	5 U	5 U	5 U
Ethylbenzene	10 U	5 U	5 U	5 U
Methylene chloride	10 U	5 U	5 U	5 U
Styrene	10 U	5 U	5 U	5 U
Tetrachloroethene	10 U	5 U	5 U	5 U
Toluene	10 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	27	8	5 U	180
trans-1,3-Dichloropropen	10 U	5 U	5 U	5 U
Trichloroethene	100	8	5 U	820
Vinyl chloride	10 U	6	5 U	36
Xylenes	10 U	5 U	5 U	5 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR35-GW61-99A	IR35-GW62-99A	IR35-GW63IW-99A	IR35-GW64IW-99A	IR35-GW65IW-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99	1/20/99	1/20/99
VOLATILES (ug/L)					
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethan	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U
Acetone	10 U	10 U	10 U	10 U	10 U
Benzene	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	5 U	5 U	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U	5 U	5 U
[illegible]omethane	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 U
Chloroethane	5 U	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U	5 U
Chloromethane	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	32	5 J	5 U	200	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5 U	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	5 U	5 U	5 U	22	5 U
trans-1,3-Dichloropropen	5 U	5 U	5 U	5 U	5 U
Trichloroethene	4 J	5 U	5 U	110	5 U
Vinyl chloride	5 U	5 U	5 U	11	5 U
Xylenes	5 U	5 U	5 U	5 U	5 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
NATURAL ATTENUATION PARAMETERS

SAMPLE ID	IR35-GW10-99A	IR35-GW10IW-99A	IR35-GW14-99A	IR35-GW14IW-99A	IR35-GW31-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99	1/20/99	1/20/99
NATURAL ATTENUATION PARAMETERS					
Ethane (ug/ml)	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethene (ug/ml)	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Methane (ug/ml)	0.07099	2.4	0.48	0.65	0.095
Nitrogen, nitrate (ug/l)	0.1 U	0.1 U	0.1 U	0.1 U	1.8
Sulfate (ug/l)	23	4.9	17	10	36
Nitrogen, nitrite (ug/l)	NA	NA	NA	NA	NA
Nitrogen, ammonia (mg/l)	NA	NA	NA	NA	NA
NO3(CALC) (mg/l)	NA	NA	NA	NA	NA
Nitrogen, total Kjeldahl (mg/l)	NA	NA	NA	NA	NA
Carbon, total organic (mg/l)	NA	NA	NA	NA	NA

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
NATURAL ATTENUATION PARAMETERS

SAMPLE ID	IR35-GW31IW-99A	IR35-GW40IW-99A	IR35-GW43IW-99A	IR35-GW55IW-99A	IR35-GW61-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99	1/20/99	1/20/99
NATURAL ATTENUATION PARAMETERS					
Ethane (ug/ml)	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Ethene (ug/ml)	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Methane (ug/ml)	0.2	0.016	0.07	0.066	0.093
Nitrogen, nitrate (ug/l)	0.28	0.1 U	0.1 U	0.42	0.1 U
Sulfate (ug/l)	14	16	35	26	10
Nitrogen, nitrite (ug/l)	NA	NA	NA	NA	NA
Nitrogen, ammonia (mg/l)	NA	NA	NA	NA	NA
NO3(CALC) (mg/l)	NA	NA	NA	NA	NA
Nitrogen, total Kjeldahl (mg/l)	NA	NA	NA	NA	NA
Carbon, total organic (mg/l)	NA	NA	NA	NA	NA

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
NATURAL ATTENUATION PARAMETERS

SAMPLE ID	IR35-GW62-99A	IR35-GW63IW-99A	IR35-GW64IW-99A	IR35-GW65IW-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99	1/20/99
NATURAL ATTENUATION PARAMETERS				
Ethane (ug/ml)	0.01 U	0.01 U	0.01 U	0.01 U
Ethene (ug/ml)	0.01 U	0.01 U	0.01 U	0.01 U
Methane (ug/ml)	0.36	0.01	0.02	0.01 U
Nitrogen, nitrate (ug/l)	0.1 U	0.1 U	0.1 U	0.1 U
Sulfate (ug/l)	14	2.3	7.7 U	2.6
Nitrogen, nitrite (ug/l)	NA	NA	NA	0.1 U
Nitrogen, ammonia (mg/l)	NA	NA	NA	0.1 U
NO3(CALC) (mg/l)	NA	NA	NA	0.01 U
Nitrogen, total Kjeldahl (mg/l)	NA	NA	NA	0.25 U
Carbon, total organic (mg/l)	NA	NA	NA	1 U

SURFACE WATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 10 - SITE 35
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR35-SW01-99A	IR35-SW02-99A	IR35-SW03-99A
DATE SAMPLED	1/20/99	1/20/99	1/20/99
VOLATILES (ug/L)			
1,1,1-Trichloroethane	5 U	5 U	5 U
1,1,2,2-Tetrachloroetha	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	5 U	5 U	5 U
2-Butanone	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
cis-1,3-Dichloropropen	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-Dichloroethe	5 U	5 U	5 U
trans-1,3-Dichloroprop	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

ATTACHMENT C
ANALYTICAL LABORATORY DATA SHEETS

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW31IW-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900390

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1217.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	20	U
75-35-4	1,1-Dichloroethene	10	U
75-09-2	Methylene Chloride	10	U
75-15-0	Carbon Disulfide	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	20	U
156-60-5	trans-1,2-Dichloroethene	27	D
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	7	JD
56-23-5	Carbon Tetrachloride	10	U
156-59-2	cis-1,2-Dichloroethene	180	D
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	100	D
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
108-10-1	4-Methyl-2-Pentanone	20	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Chlorodibromomethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylenes (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW14IW-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900391

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1218.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND		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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	15	
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	140	
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	83	
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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW14-99A
~~IR35-GW14IW-99A~~

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900392

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1219.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 5.0

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	25	U
75-01-4	Vinyl Chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
67-64-1	Acetone	50	U
75-35-4	1,1-Dichloroethene	25	U
75-09-2	Methylene Chloride	25	U
75-15-0	Carbon Disulfide	25	U
75-34-3	1,1-Dichloroethane	25	U
78-93-3	2-Butanone	50	U
156-60-5	trans-1,2-Dichloroethene	30	D
67-66-3	Chloroform	25	U
71-55-6	1,1,1-Trichloroethane	25	U
56-23-5	Carbon Tetrachloride	25	U
156-59-2	cis-1,2-Dichloroethene	290	D
107-06-2	1,2-Dichloroethane	25	U
71-43-2	Benzene	25	U
79-01-6	Trichloroethene	310	D
78-87-5	1,2-Dichloropropane	25	U
75-27-4	Bromodichloromethane	25	U
108-10-1	4-Methyl-2-Pentanone	50	U
10061-01-5	cis-1,3-Dichloropropene	25	U
108-88-3	Toluene	25	U
10061-02-6	trans-1,3-Dichloropropene	25	U
79-00-5	1,1,2-Trichloroethane	25	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	25	U
124-48-1	Chlorodibromomethane	25	U
108-90-7	Chlorobenzene	25	U
100-41-4	Ethylbenzene	25	U
1330-20-7	Xylenes (total)	25	U
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW31-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900393

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1220.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-TB01-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900394

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1221.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW62-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900395

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1222.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	5	J
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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW40IW-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900396

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1223.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	8	
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	190	
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	8	
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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW43IW-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900397

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1224.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroéthene	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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW63IW-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900398

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1225.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW10-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900399

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1226.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroéthene	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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW10IW-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900400

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1227.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	11	
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	4	J
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	33	
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	370	E
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroéthene	280	E
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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR35-GW10IW-99ADL

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900400DL

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1242.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 5.0

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	25	U
75-01-4	Vinyl Chloride	25	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	25	U
67-64-1	Acetone	50	U
75-35-4	1,1-Dichloroethene	25	U
75-09-2	Methylene Chloride	25	U
75-15-0	Carbon Disulfide	25	U
75-34-3	1,1-Dichloroethane	25	U
78-93-3	2-Butanone	50	U
156-60-5	trans-1,2-Dichloroethene	23	JD
67-66-3	Chloroform	25	U
71-55-6	1,1,1-Trichloroethane	25	U
56-23-5	Carbon Tetrachloride	25	U
156-59-2	cis-1,2-Dichloroethene	350	D
107-06-2	1,2-Dichloroethane	25	U
71-43-2	Benzene	25	U
79-01-6	Trichloroéthene	190	D
78-87-5	1,2-Dichloropropane	25	U
75-27-4	Bromodichloromethane	25	U
108-10-1	4-Methyl-2-Pentanone	50	U
10061-01-5	cis-1,3-Dichloropropene	25	U
108-88-3	Toluene	25	U
10061-02-6	trans-1,3-Dichloropropene	25	U
79-00-5	1,1,2-Trichloroethane	25	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	25	U
124-48-1	Chlorodibromomethane	25	U
108-90-7	Chlorobenzene	25	U
100-41-4	Ethylbenzene	25	U
1330-20-7	Xylenes (total)	25	U
100-42-5	Styrene	25	U
75-25-2	Bromoform	25	U
79-34-5	1,1,2,2-Tetrachloroethane	25	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW61-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900401

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1228.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	32	
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	4	J
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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-SW01-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900402

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1229.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-SW02-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900403

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1230.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW64IW-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900404

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1231.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	11	
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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	22	
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	200	
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	110	
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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-SW03-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900405

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1232.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW65IW-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900406

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1233.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (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

CAS NO.	COMPOUND		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
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW55IW-99A

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900407

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1234.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. _____ Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	36	
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	6	
75-09-2	Methylene Chloride	5	U
75-15-0	Carbon Disulfide	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
156-60-5	trans-1,2-Dichloroethene	180	
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
156-59-2	cis-1,2-Dichloroethene	750	E
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	820	E
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
1330-20-7	Xylenes (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	10	

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR35-GW55IW-99ADL

Lab Name: EA LABORATORIES Contract: 990048

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

Matrix: (soil/water) WATER Lab Sample ID: 9900407DL

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A1243.D

Level: (low/med) LOW Date Received: 1/21/99

% Moisture: not dec. Date Analyzed: 2/3/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 10.0

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	50	U
75-01-4	Vinyl Chloride	50	U
74-83-9	Bromomethane	50	U
75-00-3	Chloroethane	50	U
67-64-1	Acetone	100	U
75-35-4	1,1-Dichloroethene	50	U
75-09-2	Methylene Chloride	50	U
75-15-0	Carbon Disulfide	50	U
75-34-3	1,1-Dichloroethane	50	U
78-93-3	2-Butanone	100	U
156-60-5	trans-1,2-Dichloroethene	150	D
67-66-3	Chloroform	50	U
71-55-6	1,1,1-Trichloroethane	50	U
56-23-5	Carbon Tetrachloride	50	U
156-59-2	cis-1,2-Dichloroethene	960	D
107-06-2	1,2-Dichloroethane	50	U
71-43-2	Benzene	50	U
79-01-6	Trichloroethene	920	D
78-87-5	1,2-Dichloropropane	50	U
75-27-4	Bromodichloromethane	50	U
108-10-1	4-Methyl-2-Pentanone	100	U
10061-01-5	cis-1,3-Dichloropropene	50	U
108-88-3	Toluene	50	U
10061-02-6	trans-1,3-Dichloropropene	50	U
79-00-5	1,1,2-Trichloroethane	50	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	50	U
124-48-1	Chlorodibromomethane	50	U
108-90-7	Chlorobenzene	50	U
100-41-4	Ethylbenzene	50	U
1330-20-7	Xylenes (total)	50	U
100-42-5	Styrene	50	U
75-25-2	Bromoform	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW31IW-99A

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900390

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F771.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.10	U
SULFATE	15	E

AH 1/26/99

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW31IW-99ADL

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900390X2

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3G018.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 02/12/99

Injection Volume: 100 (uL)

Dilution Factor: 2

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.28	U
SULFATE	14	U

JH 02/16/99

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW31IW-99ADL

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900390X2

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3G018.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 02/12/99

Injection Volume: 100 (uL)

Dilution Factor: 2

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.28	
SULFATE	14	

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW14IW-99A

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900391

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F772.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.10	U
SULFATE	10	

Results based on single column analysis.

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.
IR35-GW14-99A
~~IR35-GW14IW-99A~~

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900392

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F773.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.10	U
SULFATE	20	E

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW14IW-99ADL

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900392X3

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3G019.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 02/12/99

Injection Volume: 100 (uL)

Dilution Factor: 3

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.30	U
SULFATE	17	D

AW 02/16/99

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW31-99A

Lab Name: EA Laboratories

oject No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900393

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F774.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	1.8	
SULFATE	34	E

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW31-99ADL

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900393X5

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3G020.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 02/12/99

Injection Volume: 100 (uL)

Dilution Factor: 5

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	1.9	U
SULFATE	36	U

AH 02/16/99

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW62-99A

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900395

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F775.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.10	U
SULFATE	14	E

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.: IR35-GW62-99ADL

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900395X2

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3G021.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 02/12/99

Injection Volume: 100 (uL)

Dilution Factor: 2

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.20	U
SULFATE	14	

02/16/99

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW40IW-99A

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900396

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F776.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.10	U
SULFATE	17	E

AH 2/16/99

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.
IR35-GW40IW-99ADL

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900396X2

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3G022.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 02/12/99

Injection Volume: 100 (uL)

Dilution Factor: 2

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.20	U
SULFATE	16	D

Adl 02/16/99

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW43IW-99A

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900397

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F777.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.10	U
SULFATE	37	E

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

040039

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.
IR35-GW43IW-99ADL

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900397X5

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3G023.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 02/12/99

Injection Volume: 100 (uL)

Dilution Factor: 5

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.50	U
SULFATE	35	J

AH 2/16/99

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW63IW-99A

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900398

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F778.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.10	U
SULFATE	2.3	

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW10-99A

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900399

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F779.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.10	U
SULFATE	27	E

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW10-99ADL

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900399X3

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3G024.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 02/12/99

Injection Volume: 100 (uL)

Dilution Factor: 3

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.30	U
SULFATE	23	D

dgl 02/16/99

Results based on single column analysis.

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW10IW-99A

Lab Name: EA Laboratories

oject No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900400

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F780.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.10	U
SULFATE	4.9	

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW61-99A

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900401

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F783.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.10	U
SULFATE	10	

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW64IW-99A

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900404

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F784.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.10	U
SULFATE	7.7	

Results based on single column analysis.

FORM I ANIONS METHOD 300.0

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW65IW-99A

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900406

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F785.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRITE-N	0.10	U
NITRATE-N	0.10	U
SULFATE	2.6	

Results based on single column analysis.

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW55IW-99A

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900407

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3F789.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 01/22/99

Injection Volume: 100 (uL)

Dilution Factor: 1

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.42	
SULFATE	29	E

Results based on single column analysis.

METHOD 300.0 ANION ANALYSIS DATA SHEET

SAMPLE NO.

IR35-GW55IW-99ADL

Lab Name: EA Laboratories

Project No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9900407X5

Sample wt/vol: 0.10 (g/mL) mL

Lab File ID: LC3G025.D

Level: (low/med) LOW

Date Sampled: 1/20/99

% Moisture: 0

Date Extracted: NA

Extract Volume: 0.10 (mL)

Date Analyzed: 02/12/99

Injection Volume: 100 (uL)

Dilution Factor: 5

Compound	Concentration Units: (mg/L or mg/Kg) mg/L	Q
NITRATE-N	0.50	U
SULFATE	26	D

DH 02/16/99

Results based on single column analysis.

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
SAS Case No.: 990048
F Sample No.: IR35GW65IW99
Sample matrix: WATER
Total Solids: %

Contract: BAKER CAMP
SDG No.: 9900406
Lab Sample ID No.: 9900406
Date Received: 01/21/99

Lab ID	Parameter	Sample Conc.	Concentration Units	Analyzed Date
9900406	AMMONIA	<0.100	mg/L	02/02/99
	ORGANIC NITROGEN	<0.010	mg/L	02/11/99
	TKN	<0.250	mg/L	02/10/99
	TOC	<1.0	mg/L	01/26/99

FORM I
SAMPLE ANALYSIS RESULTS

Lab Name: EA Laboratories
SAMPLE No.: 990048
EPA Sample No.: IR35GW65IW99
Sample matrix: WATER
Total Solids: %

Contract: BAKER CAMP
SDG No.: 9900406
Lab Sample ID No.: 9900406
Date Received: 01/21/99

Lab ID	Parameter	Sample Conc.	Concentration Units	Analyzed Date
9900406	AMMONIA	<0.100	mg/L	02/02/99
	ORGANIC NITROGEN	<0.010	mg/L	02/11/99
	ORTHO PHOS	0.193	mg/L	01/22/99
	TKN	<0.250	mg/L	02/10/99
	TOC	<1.0	mg/L	01/26/99

AIR TOXICS LTD.

SAMPLE NAME : 9900390

ID#: 9901261-01A IR-5-GN311W-99A

Modified Method RSK-175 GC/FID

File Name:	**1012714**	**Date of Collection: 1/20/99**	
Dil. Factor:	**1.0**	**Date of Analysis: 1/27/99**	

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.20
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900390 Duplicate

ID#: 9901261-01AA 1R35-GW311W-99A

Modified Method RSK-175 GC/FID

File Name:	**1012715**	**Date of Collection:**	**1/20/99**
Dil. Factor:	**1.0**	**Date of Analysis:**	**1/27/99**

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.22
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900391 IR35-GW141W-99A

ID#: 9901261-02A

Modified Method RSK-175 GC/FID

File Name:	1012716	**Date of Collection:**	1/20/99
Dil. Factor:	1.0	**Date of Analysis:**	1/27/99

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.65
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900392

ID#: 9901261-03A IR35-GW14-99A

Modified Method RSK-175 GC/FID

File Name:	**1012717**	**Date of Collection:**	**1/20/99**
Dil. Factor:	**1.0**	**Date of Analysis:**	**1/27/99**

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.48
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900393

ID#: 9901261-04A 1R 35-GW31-99A

Modified Method RSK-175 GC/FID

File Name:	**1012718**	**Date of Collection:**	**1/20/99**
Dil. Factor:	**1.0**	**Date of Analysis:**	**1/27/99**

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.095
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900394

ID#: 9901261-05A JR35 TB01-99A

Modified Method RSK-175 GC/FID

File Name:	**1012719**	**Date of Collection:**	**1/20/99**
Dil. Factor:	**1.0**	**Date of Analysis:**	**1/27/99**

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	Not Detected
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900395

ID#: 9901261-06A IR-35-6W62-99A

Modified Method RSK-175 GC/FID

File Name:	**1012720**	**Date of Collection: 1/20/99**	
Dil. Factor:	**1.0**	**Date of Analysis: 1/27/99**	

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.36
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900396 JR35-6W40IW-01A

ID#: 9901261-07A

Modified Method RSK-175 GC/FID

File Name:	1012723	**Date of Collection:**	1/20/99
Dil. Factor:	1.0	**Date of Analysis:**	1/27/99

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.016
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900397

ID#: 9901261-08A I.R35-GW43IW-99A

Modified Method RSK-175 GC/FID

File Name:	1012724	Date of Collection:	1/20/99
Dil. Factor:	1.0	Date of Analysis:	1/27/99

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.070
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900398

ID#: 9901261-09A IR35-GW631W-99A

Modified Method RSK-175 GC/FID

File Name:	**1012725**	**Date of Collection:**	**1/20/99**
Dil. Factor:	**1.0**	**Date of Analysis:**	**1/27/99**

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.010
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900399

ID#: 9901261-10A IR35-GW10-99A

Modified Method RSK-175 GC/FID

File Name:	**1012726**	**Date of Collection: 1/20/99**	
Dil. Factor:	**1.0**	**Date of Analysis: 1/27/99**	

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.071
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900400

ID#: 9901261-11A CR35-GW101W-99A

Modified Method RSK-175 GC/FID

File Name:	1012727	**Date of Collection:**	1/20/99
Dil. Factor:	1.0	**Date of Analysis:**	1/27/99

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	2.4
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900401

ID#: 9901261-12A IR35-GNG1-99A

Modified Method RSK-175 GC/FID

File Name:	**1012728**	**Date of Collection:**	**1/20/99**
Dil. Factor:	**1.0**	**Date of Analysis:**	**1/27/99**

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.093
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900404

ID#: 9901261-13A IR35-GWGHIW-99A

Modified Method RSK-175 GC/FID

File Name:	**1012729**	**Date of Collection:**	**1/20/99**
Dil. Factor:	**1.0**	**Date of Analysis:**	**1/27/99**

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.020
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900406

ID#: 9901261-14A JR35-GW65IW-99A

Modified Method RSK-175 GC/FID

File Name:	**1012730**	**Date of Collection: 1/20/99**	
Dil. Factor:	**1.0**	**Date of Analysis: 1/27/99**	

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	Not Detected
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial

AIR TOXICS LTD.

SAMPLE NAME : 9900407

ID#: 9901261-15A IR35-GW55 1 W-990

Modified Method RSK-175 GC/FID

File Name:	**1012731**	**Date of Collection:**	**1/20/99**
Dil. Factor:	**1.0**	**Date of Analysis:**	**1/27/99**

Compound	Det. Limit (uG/mL)	Amount (uG/mL)
Methane	0.010	0.066
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial