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MONITORING REPORT

OPERABLE UNIT NO. 4 - SITE 41
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

REPORTING PERIOD JANUARY 1999 – JUNE 1999
CONTRACT TASK ORDER 0367

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Prepared by:

BAKER ENVIRONMENTAL, INC.
Coraopolis, Pennsylvania

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MONITORING REPORT

The monitoring report which follows presents a summary of sampling activities, field observations, analytical results, and significant findings that pertain to the monitoring program at Operable Unit (OU) No. 4 (Site 41), Marine Corps Base (MCB) Camp Lejeune, North Carolina. Conclusions and recommendations regarding the monitoring program are also presented within this report.

Monitoring activities at OU No. 4 began in 1997 and have continued on a semiannual basis. The most recent sampling initiative commenced 11 January 1999 and concluded 22 January 1999. Groundwater samples at Site 41 were obtained from four shallow monitoring wells and one deep monitoring well. In addition to groundwater samples, surface water and sediment samples were obtained from eight sampling stations located throughout Site 41. Figure 1 depicts groundwater, surface water, and sediment sampling locations at Site 41. [Note that all tables and figures are provided after the text portion of this report.]

Sampling activities were conducted and subsequent laboratory analyses were performed according to procedures and methods specified in the Long-Term Monitoring Work Plans for OU No. 4 (Baker, 1996). The project work plans identify a select number of monitoring wells at Site 41 for which continued periodic sampling is required. Table 1 provides construction details of monitoring wells included in the monitoring program. As stipulated in the project work plans, measurements of pH, specific conductance, dissolved oxygen, temperature, and turbidity were recorded prior to sampling. A summary of groundwater field parameters from Site 41 is provided in Table 2.

The monitoring program at Site 41 was implemented to assess whether contamination, detected during previous investigations, remains present, has migrated, or has degraded through natural processes. Based upon previous analytical results and decision documents, Target Compound List (TCL) volatile organic compounds (VOCs) and Target Analyte List (TAL) metals were identified as contaminants of concern at Site 41. Table 3 provides a summary of requested laboratory analyses and sample identifications.

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

Groundwater Elevation and Flow Direction

The following provides information concerning groundwater flow patterns at Site 41. Water level measurements were obtained at Site 41 on 13 January 1999. Table 4 provides a summary of water level measurements. Figure 2 depicts the static elevations and approximate flow direction of groundwater at Site 41. In general, shallow groundwater flows radially from the central, topographically higher, portion of the study area toward adjacent surface water bodies. Groundwater flow direction mimics topography and is influenced locally by natural surface features including intermittent streams and marsh areas.

Field Observations

The following field observations were noted during the most recent sampling initiative. Recommendations regarding the field observations that follow are presented in a latter portion of this report.

Monitoring wells installed at Site 41 during the 1984 Confirmation Study continue to exhibit signs of deterioration from exposure to the weather. Peeling paint, rusting casings, and frozen locks are evident on some monitoring wells. Access to some monitoring well locations has become increasingly more difficult due to hurricane damage to trees as well as thick new growth.

ANALYTICAL RESULTS AND FINDINGS

The section which follows presents analytical results and findings from sampling performed at Site 41 during the first calendar quarter of 1999. The analytical results and findings that follow are presented according to environmental media. A summary of all analytical results compiled during the sampling event is presented in Attachment B and corresponding laboratory data sheets are provided in
Attachment C.

One trip blank sample was prepared prior to the sampling initiative and kept with the volatile samples from Site 41 during field collection, shipment, and laboratory analysis. As provided in Table 5, there were no detections in the trip blank sample.

Groundwater Analytical Results

Unlike the previous sampling period, VOCs were not detected among the five groundwater samples obtained at Site 41. A summary of groundwater analytical results is provided in Table 6. A positive detection summary of groundwater results is provided in Table 7. Table 8 provides a summary of VOC and metal results from groundwater samples obtained during the past two years. Future sampling will be employed to determine the nature and persistence of observed VOCs and metals at Site 41.

As presented in Table 6, aluminum, iron, lead, and manganese were the only metals detected at concentrations that exceeded either NCWQS (North Carolina Water Quality Standards) or federal MCL (maximum contaminant levels) among the five groundwater samples submitted for analyses from Site 41. Aluminum was detected in all five groundwater samples with concentrations which ranged from a minimum of 150 µg/L (micrograms per liter) to a maximum of 1520 µg/L, exceeding the 200 µg/L secondary MCL. Iron and manganese were also detected in each of the five groundwater samples obtained from Site 41. Iron concentrations ranged from 792 µg/L to 34,700 µg/L; all five positive detections of iron exceeded the 300 µg/L NCWQS. In addition, four of the five manganese detections exceeded the NCWQS of 50 µg/L. Manganese concentrations among the groundwater samples obtained from Site 41 ranged from 15.2 to 455 µg/L. Lead was detected at a concentration of 16.6 µg/L at a single location, 41-GW11, which exceeded both the NCWQS and MCL of 15 µg/L.

Iron and manganese have been detected consistently above applicable standards among groundwater samples obtained from Site 41. Soils found within the coastal plain of North Carolina are naturally rich in metals, particularly iron and manganese. The observed concentrations of iron and manganese, and to a lesser extent aluminum and lead, in groundwater are due more to geologic conditions (i.e., naturally occurring metals bound to unconsolidated soil particles) and sample acquisition methods than to mobile metal concentrations in the aquifer. The presence of metals in groundwater is often the result of solids or colloids in aqueous samples. The metals detected among groundwater samples obtained from Site 41 may also be indicative of naturally occurring metals in the presence of acidic soils.

Surface Water Analytical Results

Three surface water samples were collected from both Tank Creek and an unnamed tributary to Tank Creek at Site 41 (refer to Figure 1). Two additional surface water samples were also obtained from separate drainage ditches that flow into the unnamed tributary to Tank Creek. Each of the eight surface water samples was submitted for volatile organic and total metal analyses. Unlike the previous sampling period, no VOCs were detected among the eight surface water samples obtained from Site 41. Table 9 provides a summary of surface water analytical results. A positive detection summary of surface water results is presented in Table 10.

Metals were detected in each of the eight surface water samples. Laboratory analyses of the surface water samples indicate that 10 of 23 total metals were positively detected at Site 41. As presented in Table 9, iron was the only metal identified at concentrations in excess of either state or federal surface water criteria. Surface water sampled at the two drainage ditches to the unnamed tributary (stations 41-DD-SW01 and 41-DD-SW02), and at Tank Creek (stations 41-TC-SW10, 41-TC-SW11, and 41-TC-SW12) had iron detections that exceeded the North Carolina water quality standard of 1,000 µg/L. As provided in Table 9, the maximum iron concentration was 3,810 µg/L.

Analytical results from previous investigations and results obtained during the monitoring program are relatively consistent, with some variation. Historical data show that the metals arsenic, copper, iron, lead, and manganese have been present at concentrations which have exceeded state surface water quality standards. Due to the composition of regional soils, these metals are commonly detected among surface waters at concentrations that exceed the applicable criteria, however.

Sediment Analytical Results

Eight sediment samples were collected in conjunction with the surface water samples. Each of the eight sediment samples was submitted for volatile organic and total metal analyses. As presented in Table 11, one organic compound was detected among the eight sediment samples. Acetone was detected in three sediment samples at a maximum concentration of 110 micrograms per kilogram (µg/kg). Acetone has also been detected at relatively low concentrations in sediments obtained from Site 41 during previous investigations. Historically, the only organic compounds detected in sediment during the monitoring program have been common laboratory contaminants. As such, the presence of acetone at the observed concentration may be the result of sample acquisition, preparation, or handling.

Laboratory analyses of the sediment samples obtained from Tank Creek, an unnamed tributary to Tank Creek, and two separate drainage ditches indicate that 20 of 23 metals were positively detected. As indicated in Table 11, mercury was the only metal detected at a concentration that exceeded Region IV sediment screening values. Sample 41-DD-SD02, obtained from one of the two drainage ditches, and sample 41-TC-SD12, obtained from Tank Creek, had mercury detections that exceeded the screening value of 0.13 mg/kg.

Aluminum, barium, calcium, iron, lead, manganese, mercury, sodium, and zinc were detected in each of the eight samples. A positive detection summary of metals in sediment samples is presented in Table 12. The majority of both historical data and data generated during the monitoring program include metals (i.e., common analytes detected at similar concentrations). Concentrations of metals among sediment samples obtained at Site 41 are consistent with other samples collected at various sites throughout MCB, Camp Lejeune.

RECOMMENDATIONS

The Record of Decision (ROD) for OU No. 4 stipulates that environmental samples from Sites 41 be collected periodically to monitor the possible migration of potential site contaminants (Baker, 1995). The sections which follow describe recommendations in support of the selected remedy, periodic monitoring, which have been implemented or are being proposed for future consideration. The intent of this report is to provide a brief listing of implemented actions and a thorough description of any proposed recommendations.

Implemented Recommendations

Information pertaining to the recommendations that have been implemented is briefly presented in the paragraphs that follow. Details regarding each implemented recommendation may be found within previous monitoring reports.

Well Security and Aesthetics Maintained

Bollards and protective casings of monitoring wells installed during the 1984 Confirmation Study were repainted with weather resistant paint in February 1997. Since then an on-going surveillance and general upkeep of the condition of the monitoring wells has been maintained. This upkeep includes repainting and the replacement of rusted and frozen locks. Repairs are made on an "as needed" basis.

Proposed Recommendations

Based upon the observations and findings presented in this report, the following recommendations for the monitoring program at OU No. 4 are proposed. If non-significant changes are made to a component of the selected remedy described in the ROD (Baker, 1995), the changes must be recorded in a post-decision document file. If significant changes are made to a component of the selected remedy, the changes will need to be presented in an Explanation of Significant Differences document.

Monitoring Point Reduction

Currently, eight surface water and sediment sampling points are periodically being monitored at Site 41 for metal and VOC contaminants. The purpose of monitoring at Site 41 should be upon the quality of surface water that is flowing into and out of Site 41. The continued evaluation of sampling points at the center of Site 41, is in essence providing data which is already known. Therefore, it is recommended that interior points be eliminated from the Monitoring Program. This elimination of points would include the middle sampling point along Tank Creek (41-TC-SW\SD11) and the two surface water and sediment sampling locations along the two drainage ditches, 41-DD-SW\SD01 and 41-DD-SW\SD02. In addition, 41-UT-SW\SD03 is recommended for removal from the LTM Program. It is one of two down gradient sampling locations along the unnamed tributary. 41-UT-SW\SD02 (the other down gradient location) is considerably closer to the study area at Site 41. The elimination of these four points would not hinder efforts to ascertain the possible off-site migration of contamination.

The above recommendations are suggested to expedite the process of completing monitoring activities at Site 41 and thus eliminate OU. No. 4 from the LTM program completely. Similar recommendations have been proposed by Radian International (Radian). Radian was tasked to provide an independent assessment of the Monitoring Program currently employed by Baker at Camp Lejeune. Radian further asserts that reduction of monitoring points at Site 41 will generate substantial savings in cost, effort and time.

Modify Site 41 Endpoint Criteria for Metals

At Site 41 metals are the primary contaminants of concern as are the elevated levels of metal concentrations, primarily concentrations of iron and manganese and to some degree aluminum and lead. Since soils found within the coastal plain of North Carolina are naturally rich in metals, particularly iron and manganese, achieving four consecutive rounds of data indicating detections below the NCWQS of metals in groundwater might be an unachievable goal.

It is recommended that a background groundwater study be conducted to evaluate the naturally occurring levels of metals in groundwater. This can be accomplished by querying analytical data from past sampling events at various sites across Camp Lejeune though the GIS database. Once this background study is completed, a general consensus can be reached regarding the threshold of acceptable metal concentrations in groundwater for Site 41. This new benchmark could become the new endpoint of monitoring at Site 41.

Modify Site 41 Sample Analyses

All surface water and sediment samples collected from Site 41 are monitored for VOCs and metals. In the last four sampling periods (2 years), no VOCs have been detected from five surface water sampling locations with the exception of methylene chloride. Likewise, during this time no VOCs have been detected from five sediment sampling locations with the exception of acetone. Both methylene chloride and acetone are common laboratory contaminants and in instances where detections have occurred, they have been attributed to laboratory contamination. In the interest of cost savings, it is recommended that VOC analysis be eliminated for surface water sample locations 41-DD-SW02, 41-TC-SW10, 41-TC-SW11, 41-UT-SW01, and 41 UT-SW03, and for sediment sample locations 41-DD-SD01, 41-TC-SD12, 41-UT-SD01, 41-UT-SD02, and 41-UT-SD03. It should be noted that sampling points 41-DD-SD01, 41-DD-SW02, 41-UT-SW\SD03, and 41-TC-SW11 occur at locations recommended to be dropped as monitoring points at Site 41, (See "Monitoring Point Reduction"). The historical lack of positive VOC detections in surface water and/or sediment at these locations supports this recommendation.

REFERENCES

Baker Environmental, Inc. (Baker). May 1995. Record of Decision for Operable Unit No. 4 (Sites 41 and 74). Final. Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

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

Radian International (Radian). January 1999. Marine Corps Base Camp Lejeune Long Term Monitoring Optimization Case Study. Draft. Prepared for the Naval Facilities Engineering Service Center, Port Hueneme, California.

TABLES

TABLE 1

SUMMARY OF WELL CONSTRUCTION DETAILS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site 41 Well No.	Date Installed	Top of Casing Elevation (feet, msl)	Ground Surface Elevation (feet, msl)	Boring Depth (feet, bgs)	Well Depth (feet, bgs)	Screen Interval Depth (feet, bgs)	Sand Pack Interval Depth (feet, bgs)	Bentonite Interval Depth (feet, bgs)	Stick-Up (feet, ags)
41-GW02	NA	NA	NA	NA	NA	NA	NA	NA	NA
41-GW10	1994	13.93	12.1	14.0	13.0	3.0 - 13.0	1.5 - 14.0	0.5 - 1.5	1.8
41-GW11	1994	24.69	21.5	16.0	15.0	5.0 - 15.0	3.0 - 16.0	0.5 - 3.0	3.2
41-GW11DW	1994	23.63	21.5	52.0	50.0	40.0 - 50.0	37.0 - 52.0	35.0 - 37.0	2.1
41-GW12	1994	8.41	6.4	17.0	16.0	6.0 - 16.0	4.0 - 17.0	2.0 - 4.0	2.0

Notes:

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

TABLE 2

SUMMARY OF GROUNDWATER FIELD
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number (Sample Date)	Measuring Time	Well Volumes	Field Parameters				
			Temperature (°C)	pH (S.U.)	Specific Conductance (µmhos/cm)	Dissolved Oxygen (mg/L)	Turbidity (N.T.U.)
41-GW02 (01/13/1999)	1628	1.0	16.6	6.79	990	NA	53
	1635	2.0	16.5	6.77	990	NA	40
	1645	3.0	16.5	6.80	980	NA	21
	1659	4.0	16.4	6.77	990	NA	10
41-GW10 (01/13/99)	1515	1.0	14.9	6.39	144	NA	10
	1530	2.0	14.7	5.89	142	NA	10
	1550	3.0	14.7	5.80	143	NA	10
41-GW11 (01/14/1999)	1433	1.0	17.0	6.80	NA	NA	8
	1440	2.0	16.7	6.77	NA	NA	8
	1446	3.0	16.7	6.73	NA	NA	8
41-GW11DW (01/14/1999)	1339	1.0	17.4	6.80	1140	NA	10
	1351	1.5	17.6	6.65	970	NA	1
	1358	2.0	17.6	6.76	NA	NA	0
	1405	2.5	17.6	6.75	NA	NA	0
	1413	3.0	17.5	6.71	NA	NA	0
41-GW12 (01/13/1999)	1645	0.5	16.6	6.42	290	NA	154
	1652	1.0	16.5	6.44	266	NA	64
	1657	1.5	16.4	6.48	266	NA	10
	1702	2.0	16.3	6.47	260	NA	10
	1708	2.5	16.3	6.52	265	NA	10
	1713	3.0	16.2	6.59	264	NA	10

Notes:

°C = Degrees Centigrade
S.U. = Standard Units
µmhos/cm = micro ohms per centimeter
mg/L = milligrams per liter
N.T.U. = Nephlometric Turbidity Units
NA = Data not available

TABLE 3

SAMPLING SUMMARY
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Location	Media	CLP Volatiles[1]	TAL Metals[2]	Laboratory Sample Identification
41-GW02	Groundwater	X	X	IR41-GW02-99A
41-GW10	Groundwater	X	X	IR41-GW10-99A
41-GW11	Groundwater	X	X	IR41-GW11-99A
41-GW11DW	Groundwater	X	X	IR41-GW11DW-99A
41-GW12	Groundwater	X	X	IR41-GW12-99A
41-UT-SW01	Surface Water	X	X	IR41-UT-SW01-99A
41-UT-SW02	Surface Water	X	X	IR41-UT-SW02-99A
41-UT-SW03	Surface Water	X	X	IR41-UT-SW03-99A
41-TC-SW10	Surface Water	X	X	IR41-TC-SW10-99A
41-TC-SW11	Surface Water	X	X	IR41-TC-SW11-99A
41-TC-SW12	Surface Water	X	X	IR41-TC-SW12-99A
41-UT-SD01	Sediment	X	X	IR41-UT-SD01-99A
41-UT-SD02	Sediment	X	X	IR41-UT-SD02-99A
41-UT-SD03	Sediment	X	X	IR41-UT-SD03-99A
41-TC-SD10	Sediment	X	X	IR41-TC-SD10-99A
41-TC-SD11	Sediment	X	X	IR41-TC-SD11-99A
41-TC-SD12	Sediment	X	X	IR41-TC-SD12-99A
41-DD-SD01	Sediment	X	X	IR41-DD-SD01-99A
41-DD-SD02	Sediment	X	X	IR41-DD-SD02-99A

Notes:

[1] Target Compound List Volatiles by U.S. Environmental Protection Agency, Method 8260A.

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

X = Requested analysis

TABLE 4

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation [1]	SWE (08/13/97)	SWE (02/11/98)	SWE (07/26/98)	SWL (01/13/99)	SWE (1/13/99)
41-GW01	22.60	12.14	16.92	13.08	8.26	14.34
41-GW02	14.63	6.72	11.10	7.88	4.37	10.26
41-GW03	19.23	NA	10.91	NA	10.51	8.72
41-GW04	11.99	3.82	6.58	4.89	6.02	5.97
41-GW07	22.73	10.47	15.22	11.25	9.79	12.94
41-GW08	19.48	6.82	12.05	10.37	7.54	11.94
41-GW09	25.98	13.13	18.78	14.04	10.93	15.05
41-GW10	13.93	6.18	9.88	7.49	4.85	9.08
41-GW11	24.69	13.94	16.45	14.51	10.10	14.59
41-GW11DW	23.63	16.69	12.37	8.98	12.92	10.71
41-GW12	8.41	1.47	5.10	3.78	3.90	4.51
41-GW13	16.19	3.26	8.57	4.24	9.03	7.16

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
NA = Data not available

TABLE 5

TRIP BLANK ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-TB01-99A
DATE SAMPLED	1/14/99
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

U = Not Detected
ug/l = Micrograms per liter

TABLE 6

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Contaminants or Analytes	Comparison Criteria		Concentration Range		Location of Maximum Detection	Detection Frequency	Detections Above	
		NCWQS	MCL	Min.	Max.			NCWQS	MCL
Total Metals	Aluminum	NE	200 (1)	150	1,520	41-GW10	5/5	NA	3
	Antimony	NE	6	2.1 B	2.1 B	41-GW11	1/5	NA	0
	Arsenic	50	50	3.2 B	3.2 B	41-GW11	1/5	0	0
	Barium	2,000	2,000	25.2 B	440	41-GW11	5/5	0	0
	Beryllium	NE	4	0.27 B	0.27 B	41-GW02	1/5	NA	0
	Calcium	NE	NE	9,230	144,000	41-GW02	5/5	NA	NA
	Cobalt	NE	NE	4.9 B	9.1 B	41-GW12	3/5	NA	NA
	Iron	300	300 (1)	792	34,700	41-GW02	5/5	5	5
	Lead	15	15	16.6	16.6	41-GW11	1/5	1	1
	Magnesium	NE	NE	1790 B	24,400	41-GW02	5/5	NA	NA
	Manganese	50	50 (1)	15.2	455	41-GW02	5/5	4	4
	Nickel	100	100	20.5 B	20.5 B	41-GW11	1/5	0	0
	Potassium	NE	NE	709 B	22,200	41-GW11	4/5	NA	NA
	Sodium	NE	NE	8,210 E	120,000 E	41-GW11DW	5/5	NA	NA
	Zinc	2,100	5,000 (1)	16 B	27.9	41-GW11	2/5	0	0

Notes:

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

(1) - Secondary Federal Maximum Contaminant Level (Refer to MCL Note Below).

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

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-GW02-99A	IR41-GW10-99A	IR41-GW11-99A	IR41-GW11DW-99A	IR41-GW12-99A
DATE SAMPLED	1/13/99	1/13/99	1/14/99	1/14/99	1/13/99
METALS (ug/l)					
Aluminum	339	1520	206	198	150
Antimony	1.2 U	1.2 U	2.1 B	1.2 U	1.2 U
Arsenic	1.6 U	1.6 U	3.2 B	1.6 U	1.6 U
Barium	98 B	47 B	440	36.2 B	25.2 B
Beryllium	0.27 B	0.1 U	0.1 U	0.1 U	0.1 U
Calcium	144000	9230	106000	141000	38800
Cobalt	4.9 B	3.1 U	6.5 B	3.1 U	9.1 B
Iron	34700	792	34500	1540	4150
Lead	1 U	1 U	16.6	1 U	1 U
Magnesium	24400	1790 B	17100	4530 B	2220 B
Manganese	455	15.2	310	82.3	68.8
Nickel	5.7 U	5.7 U	20.5 B	5.7 U	5.7 U
Potassium	17300	161 U	22200	1400 B	709 B
Sodium	25100 E	14900 E	26700 E	120000 E	8210 E
Zinc	11.9 U	11.9 U	27.9	11.9 U	16 B

U = Not Detected
B = Estimated result
E = Estimated result. Result Concentration exceeds the calibration range
ug/l = Micrograms per liter

TABLE 8

VOLATILE COMPOUNDS AND METALS IN GROUNDWATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Monitoring Well/ Volatile Compound	MCL	NCWQS	March 1996	February 1997	August 1997	February 1998	July 1998	January 1999
41-GW02								
Aluminum	200	NE	NA	205	NA	NA	NA	339
Barium	2,000	2,000	ND	ND	ND	ND	ND	98 B
Beryllium	4	NE	ND	ND	ND	ND	ND	0.27 B
Calcium	NE	NE	ND	ND	ND	ND	ND	144,000
Cobalt	NE	NE	ND	ND	ND	ND	ND	4.9 B
Iron	300	300	28,900	27,200	25,300	33,700	32,800	34,700
Magnesium	NE	NE	ND	ND	ND	ND	ND	24,400
Manganese	50	50	432	376	346	428	417	455
Potassium	NE	NE	ND	ND	ND	ND	ND	17,300
Sodium	NE	NE	ND	ND	ND	ND	ND	25,100 E
41-GW10								
Toluene	1,000	1,000	ND	ND	ND	ND	1.0 J	ND
Aluminum	200	NE	2,860	1,390	619	1,270	494	1,520
Barium	2,000	2,000	ND	ND	ND	ND	ND	47 B
Calcium	NE	NE	ND	ND	ND	ND	ND	9,230
Iron	300	300	NA	NA	2,560	728	2,250	792
Magnesium	NE	NE	ND	ND	ND	ND	ND	1,790 B
Manganese	50	50	NA	NA	NA	NA	56.1	15.2
Sodium	NE	NE	ND	ND	ND	ND	ND	14,900 E
41-GW11								
Acetone	NE	700	ND	ND	ND	12 J	ND	ND
Benzene	5	1	4 J	4 J	4 J	.26J	3.8	ND
Chlorobenzene	100	50	5 J	3 J	ND	1.1 J	S.0 J	ND
Toluene	1,000	1,000	ND	ND	ND	ND	0.76 J	ND
Aluminum	200	NE	ND	ND	ND	ND	ND	206
Antimony	6	NE	ND	ND	ND	ND	ND	2.1 B
Arsenic	50	50	ND	ND	ND	ND	ND	3.2 B
Barium	2,000	2,000	ND	ND	ND	ND	ND	440
Calcium	NE	NE	ND	ND	ND	ND	ND	106,000
Cobalt	NE	NE	ND	ND	ND	ND	ND	6.5 B
Iron	300	300	60,200	32,700	26,600	39,500	36,200	34,500
Lead	15	15	NA	21	NA	NA	NA	16.6
Magnesium	NE	NE	ND	ND	ND	ND	ND	17,100
Manganese	50	50	259	162	181	332	195	310
Nickel	100	100	ND	ND	ND	ND	ND	20.5 B
Potassium	NE	NE	ND	ND	ND	ND	ND	22,200
Sodium	NE	NE	ND	ND	ND	ND	ND	26,700 E
Zinc	NE	2,100	ND	ND	ND	ND	ND	27.9
41-GW11DW								
Vinyl Chloride	2	0.015	1.0 J	ND	ND	ND	ND	ND
1,2-Dichlorocthene (total)	NE	NE	1.0 J	ND	ND	1.0 J	0.74 J	ND
1,2-Dichloropropane	5	0.56	1.0 J	ND	ND	ND	ND	ND
Benzene	5	1	1.0 J	ND	ND	ND	1.1 J	ND
Aluminum	200	NE	ND	ND	ND	ND	ND	198
Barium	2,000	2,000	ND	ND	ND	ND	ND	36.2 B
Calcium	NE	NE	ND	ND	ND	ND	ND	141,000

TABLE 8

VOLATILE COMPOUNDS AND METALS IN GROUNDWATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Monitoring Well/ Volatile Compound	MCL	NCWQS	March 1996	February 1997	August 1997	February 1998	July 1998	January 1999
41-GW11DW (continued)								
Iron	300	300	3,340	2,810	2,820	3,410	2,750	1,540
Magnesium	NE	NE	ND	ND	ND	ND	ND	4,530 B
Manganese	50	50	138	120	121	139	122	82.3
Potassium	NE	NE	ND	ND	ND	ND	ND	1,400 B
Sodium	NE	NE	ND	ND	ND	ND	ND	120,000 E
041-GW12								
Aluminum	200	NE	ND	ND	ND	ND	ND	150
Barium	2,000	2,000	ND	ND	ND	ND	ND	25.2 B
Calcium	NE	NE	ND	ND	ND	ND	ND	38,800
Cobalt	NE	NE	ND	ND	ND	ND	ND	9.1 B
Iron	300	300	4,820	5,400	1,930	4,910	1,840	4,150
Magnesium	NE	NE	ND	ND	ND	ND	ND	2,220 B
Manganese	50	50	119	119	NA	110	69	68.8
Potassium	NE	NE	ND	ND	ND	ND	ND	709 B
Sodium	NE	NE	ND	ND	ND	ND	ND	8,210 E
Zinc	NE	2,100	ND	ND	ND	ND	ND	16 B

Notes:

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

B = Estimated Result. Contaminant detected in laboratory blank.
J = Estimated Result
E = Estimated Result. Result concentration exceeds the calibration range.
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 or analyte detected at a concentration less than screening standard.
NCWQS = North Carolina Water Quality Standards. Values Applicable to Groundwater (North Carolina Administrative Code, Title 15A, Subchapter 2L).
ND = Not Detected
NE = Not Established

TABLE 9

SUMMARY OF SURFACE WATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Contaminants or Analytes	Comparison Criteria		Concentration Range		Location of Maximum Detection	Detection Frequency	Detections Above	
		NCWQS	Region IV	Min.	Max.			NCWQS	Region IV
Total Metals	Aluminum	NE	NE	142	707	41-TC-SW10	8/8	NA	NA
	Barium	NE	NE	25.8 B	54.9 B	41-DD-SW01	8/8	NA	NA
	Calcium	NE	NE	15,600	81,300	41-DD-SW02	8/8	NA	NA
	Iron	1,000	NE	682	3,810	41-TC-SW12	8/8	5	NA
	Magnesium	NE	NE	1,580 B	9,150	41-DD-SW02	8/8	NA	NA
	Manganese	NE	NE	16.2	463	41-DD-SW02	8/8	NA	NA
	Potassium	NE	NE	1,390 B	6,280	41-DD-SW02	8/8	NA	NA
	Sodium	NE	NE	13,900 E	30,600 E	41-DD-SW02	8/8	NA	NA
	Vanadium	NE	NE	2.5 B	2.5 B	41-UT-SW01	1/8	NA	NA
	Zinc	230	58.9	12.4 B	24.7	41-DD-SW01	3/8	0	0

Notes:

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

B = Estimated Result
E = Estimated Result. Result Concentration exceeds the calibration range.
NA = Not Applicable
NCWQS = North Carolina Water Quality Standards (North Carolina Administrative Code, Title 15A, Subchapter 2B, Rule .0211).
NE = Not Established
Region IV = U.S. Environmental Protection Agency, Region IV - Surface Water Screening Values Protective of Freshwater Aquatic Life.

TABLE 10

POSITIVE DETECTIONS IN SURFACE WATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-DDSW01-99A	IR41-DDSW02-99A	IR41-TCSW10-99A	IR41-TCSW11-99A	IR41-TCSW12-99A	IR41-UTSW01-99A	IR41-UTSW02-99A	IR41-UTSW03-99A
DATE SAMPLED	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99
METALS (ug/l)								
Aluminum	148	142	707	333	144	334	159	161
Barium	54.9 B	54.3 B	32.9 B	28.9 B	25.8 B	31.8 B	30.5 B	27.6 B
Calcium	45200	81300	19300	17800	15600	43800	38800	36000
Iron	1110	1310	1460	1560	3810	682	724	706
Magnesium	5100	9150	1770 B	1750 B	1580 B	1850 B	2320 B	2000 B
Manganese	32.1	463	34.5	16.6	38.4	16.2	26	19.1
Potassium	4310 B	6280	2110 B	2210 B	1850 B	2120 B	1560 B	1390 B
Sodium	14500 E	30600 E	18100 E	17300 E	13900 E	26100 E	14000 E	13900 E
Vanadium	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.5 B	2.2 U	2.2 U
Zinc	24.7	11.9 U	11.9 U	12.4 B	11.9 U	14.6 B	11.9 U	11.9 U

U = Not Detected
B = Estimated result
E = Estimated result. Result Concentration exceeds the calibration range
ug/l = Micrograms per liter

TABLE 11

SUMMARY OF SEDIMENT ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Compounds or Analytes	NOAA	Concentration Range		Location of Maximum Detection	Detection Frequency	Detections Above Comparison Criteria
			Min.	Max.			
Volatiles	Acetone	NE	30	110	41-DD-SD01	3/8	NA
Metals	Aluminum	NE	186	4,200	41-DD-SD02	8/8	NA
	Antimony	12	1.1 B	1.1 B	41-DD-SD02	1/8	0
	Arsenic	7.24	0.79 B	1.1 B	41-DD-SD02	2/8	0
	Barium	NE	1.2 B	43.3 B	41-DD-SD02	8/8	NA
	Cadmium	1.0	0.08 B	0.78 B	41-DD-SD02	3/8	0
	Calcium	NE	177 B	10,400	41-DD-SD02	8/8	NA
	Chromium	52.3	1.1 B	10.3	41-UT-SD01	6/8	0
	Cobalt	NE	1.7 B	16.9 B	41-DD-SD02	2/8	NA
	Copper	19	5.2	12.3	41-DD-SD02	2/8	0
	Iron	NE	168	27,500	41-DD-SD01	8/8	NA
	Lead	30.2	1.4	25.2	41-DD-SD02	8/8	0
	Magnesium	NE	8.2 B	437 B	41-DD-SD02	7/8	NA
	Manganese	NE	0.46 B	119	41-DD-SD02	8/8	NA
	Mercury	0.13	0.06 B	0.23	41-TC-SD12	8/8	2
	Nickel	15.9	2 B	7.5 B	41-DD-SD02	3/8	0
	Potassium	NE	58.7 B	144 B	41-DD-SD02	3/8	NA
	Selenium	NE	0.61 B	4.1	41-DD-SD02	6/8	NA
	Sodium	NE	53.3 B	308 B	41-DD-SD02	8/8	NA
	Vanadium	NE	0.6 B	11.3 B	41-DD-SD02	7/8	NA
	Zinc	124	3.3 B	57.6	41-DD-SD02	8/8	0

Notes:

Volatile Compound concentrations presented in micrograms per kilogram (µg/kg) or parts per billion.
Metal concentrations presented in milligrams per kilogram (mg/kg) or parts per million.

B = Estimated Result
NA = Not Applicable
NE = Not Established
NOAA = U.S. Environmental Protection Agency, Region IV - Adoption of Risk-Based Effects Values for Aquatic Life from the National Oceanic and Atmospheric Administration (NOAA).

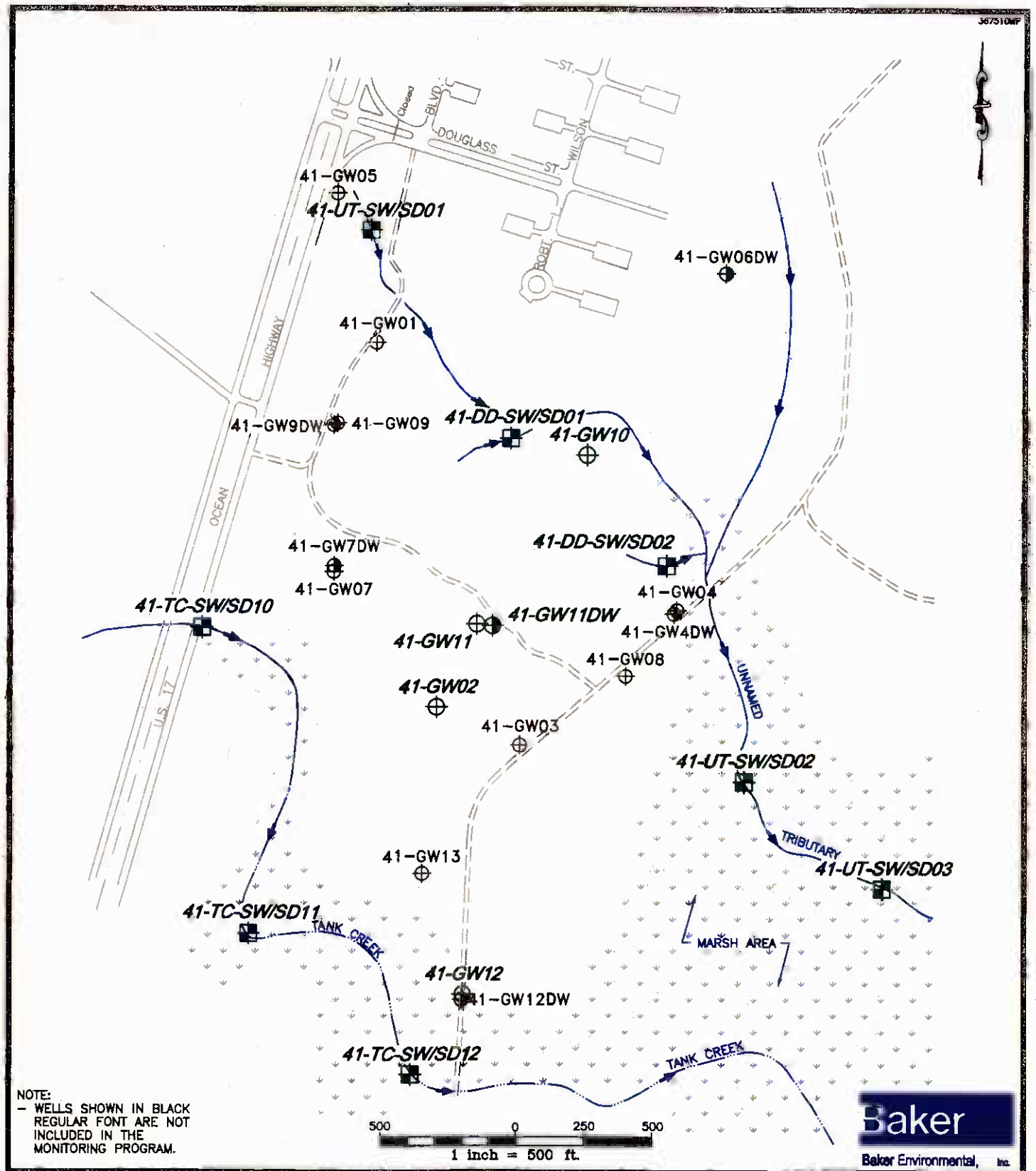
TABLE 12

POSITIVE DETECTIONS IN SEDIMENT
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-DDSD01-99A	IR41-DDSD02-99A	IR41-TCSD10-99A	IR41-TCSD11-99A	IR41-TCSD12-99A	IR41-UTSD01-99A	IR41-UTSD02-99A	IR41-UTSD03-99A
DATE SAMPLED	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99
VOLATILES (ug/kg)								
Acetone	110	36 U	30	38	13 U	13 U	12 U	12 U
METALS (mg/kg)								
Aluminum	2760	4200	1390	841	1510	2050	223	186
Antimony	0.41 U	1.1 B	0.35 U	0.33 U	0.3 U	0.3 U	0.29 U	0.29 U
Arsenic	0.79 B	1.1 B	0.46 U	0.44 U	0.4 U	0.4 U	0.38 U	0.39 U
Barium	33 B	43.3 B	11.5 B	19.6 B	18.8 B	11.4 B	4.9 B	1.2 B
Cadmium	0.1 U	0.78 B	0.09 U	0.08 B	0.2 B	0.08 U	0.07 U	0.07 U
Calcium	1840	10400	572	1050	1240	1370	178 B	177 B
Chromium	3.3 B	5.3 B	1.7 B	1.1 B	1.9 B	10.3	0.68999 U	0.7 U
Cobalt	1.1 U	16.9 B	0.9 U	0.85 U	1.7 B	0.78 U	0.74 U	0.75 U
Copper	0.37 U	12.3	0.32 U	0.3 U	0.28 U	5.2	0.26 U	0.27 U
Iron	27500	11500	2040	1270	2260	1230	221	168
Lead	12.7	17.3	4.7	3	13.3	25.2	4.4	1.4
Magnesium	134 B	437 B	50.7 B	47.7 B	41.4 B	48.3 B	8.2 B	7 U
Manganese	33.4	119	4 B	8.6	7.9	2.8 B	0.46 B	0.53 B
Mercury	0.1 B	0.21 B	0.06 B	0.1 B	0.23	0.09 B	0.07 B	0.06 B
Nickel	2.6 B	7.5 B	1.7 U	1.6 U	2 B	1.4 U	1.4 U	1.4 U
Potassium	58.7 B	144 B	60 B	43.9 U	40.4 U	40.4 U	38.4 U	38.9 U
Selenium	2	4.1	0.72 U	0.83 B	0.98 B	0.96 B	0.6 U	0.61 B
Sodium	143 B	308 B	105 B	80 B	77.7 B	69.3 B	53.3 B	64.4 B
Vanadium	4.1 B	11.3 B	2.5 B	1.3 B	2.5 B	2.8 B	0.6 B	0.53 U
Zinc	32.7	57.6	7.6	10	20.5	17.4	3.3 B	5.3

U = Not Detected
B = Estimated result
ug/kg = Micrograms per kilogram
mg/kg = Milligrams per kilogram

FIGURES



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

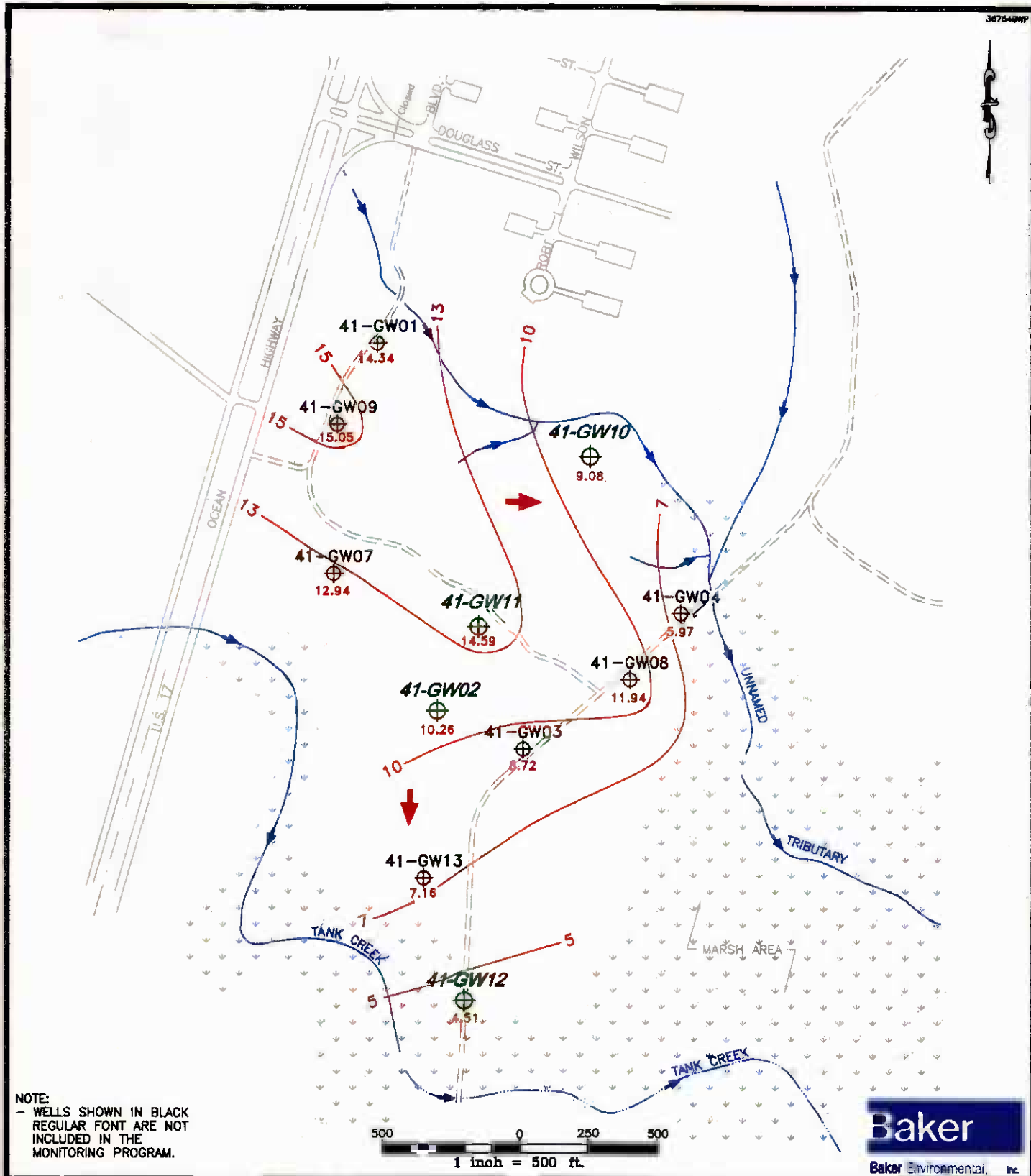
Baker
Baker Environmental, Inc.

LEGEND

41-GW11DW – DEEP MONITORING WELL
41-GW01 – SHALLOW MONITORING WELL
41-TC-SW/SD01 – SURFACE WATER AND SEDIMENT SAMPLING STATION
– ROAD (UNIMPROVED)
– DIRECTION OF SURFACE WATER FLOW

SOURCE: LANTDIV, OCT. 1991

FIGURE 1
SAMPLING LOCATION MAP
OPERABLE UNIT NO. 4 – SITE 41
MONITORING AND O&M SUPPORT
CTO – 0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



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

Baker

Baker Environmental, Inc.

LEGEND

41-GW01 – SHALLOW MONITORING WELL

14.34 – GROUNDWATER ELEVATION (MSL) MEASURED ON JANUARY 13, 1999

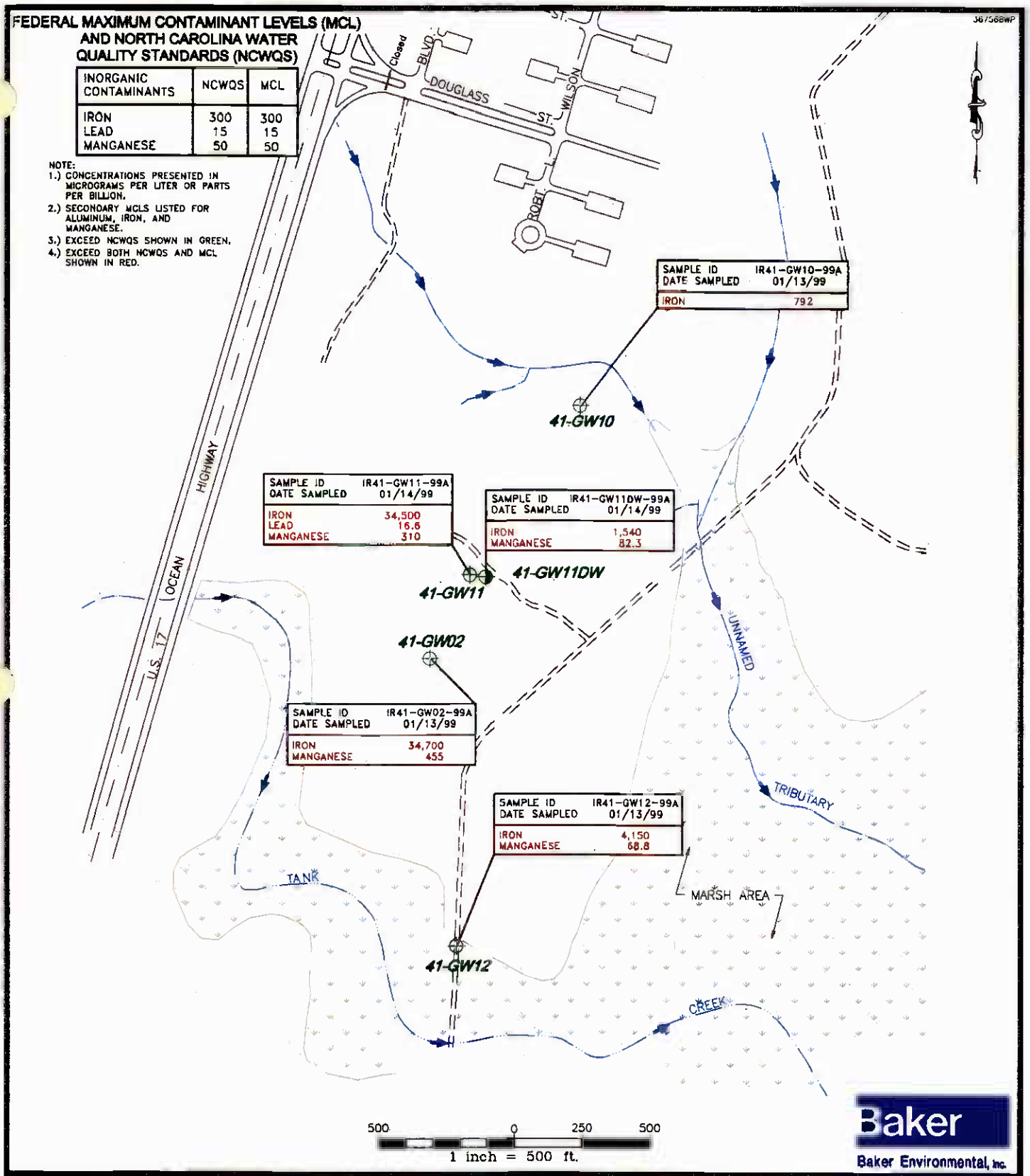
—5— – GROUNDWATER ELEVATION CONTOUR

– GROUNDWATER FLOW DIRECTION

– SURFACE WATER FLOW DIRECTION

SOURCE: LANTDIV, OCT. 1991

FIGURE 2
SHALLOW GROUNDWATER CONTOUR MAP
OPERABLE UNIT NO. 4 – SITE 41
MONITORING AND O&M SUPPORT
CTO – 0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



LEGEND

41-GW11DW — DEEP MONITORING WELL

41-GW01 — SHALLOW MONITORING WELL

— DIRECTION OF SURFACE WATER FLOW

SOURCE: LANTDIV, OCT. 1991

FIGURE 3
ORGANICS AND METALS IN GROUNDWATER ABOVE SCREENING STANDARDS
OPERABLE UNIT NO. 4 – SITE 41
MONITORING AND O&M SUPPORT
CTO – 0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

ATTACHMENTS

ATTACHMENT A
CHAIN-OF-CUSTODY DOCUMENTATION

COC - 36703 RA

Company Name:	Project Manager or Contact:
Baker Environmental Inc.	Tom Tepelock
	Phone: (412) 269-2051
Project No.	Project Name:
Dept.: Task:	Camp Lejeune - LTM
Sample Storage Location:	ATO Number:
Page 1 of 2	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 by 5360A	TAL Metals (CLP SOW IL mod 3.0	EA Labs Accession Number	Remarks
1/13	0840	X		IR41-TB-SW1201-991A	4	X	X		LPM:
1/13	0840		X	IR41-TB-SD1201-991A	2	X	X		
1/13	1300		X	IR41-DUP-SD0101-991A	2	X	X		
1/13	1300	X		IR41-DUP-SW0101-991A	4	X	X		
1/13	1330		X	IR41-TB-SD1101-991A	2	X	X		
1/13	1330	X		IR41-TB-SW1101-991A	4	X	X		
1/13	0900		X	IR41-TB-SD1111-991A	2	X	X		
1/13	0900	X		IR41-TB-SW1111-991A	4	X	X		
1/13	1000		X	IR41-DUP-SD0301-991A	2	X	X		
1/13	1000	X		IR41-DUP-SW0301-991A	4	X	X		
1/13	1024	X		IR41-DUP-SW0201-991A	4	X	X		
1/13	1024		X	IR41-DUP-SD0201-991A	2	X	X		
1/13	1045		X	IR41-MW-SD0201-991A	2	X	X		
1/13	1045	X		IR41-MW-SW0201-991A	4	X	X		
1/13	1430	X		IR41-DU-SW0101-991A	4	X	X		
1/13	1430		X	IR41-MW-SD0101-991A	2	X	X		
1/13	1020	X		IR41-GW1201-991A	3	X			
1/13	1655	X		IR41-GW1002-991A	3	X			
1/13	1600	X		IR41-GW1001-991A	3	X			
1/14	1200	X		IR41-TB0111-991A	3	X			

Samples by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	**Date/Time**	**Received by Laboratory: (Signature)**	**Date/Time**	**Airbill Number:**	**Sample Shipped by: (Circle)**
Jon C Edd Jr.	1/14/99 1200				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*

COC # 367038-99A

Company Name:	Project Manager or Contact:
Baker Environmental Inc.	Tom Tedilcoic
	Phone: (412) 269-2051
Project No.	Project Name:
Dept.: Task:	Camp Lejeune - LTM
Sample Storage Location:	ATO Number:
Page 2 of 2	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: _____

Date	Time	Water	Soil	Sample Identification 19 Characters	No. of Containers	TCL Volatiles by 8260A	EA Labs Accession Number	Remarks
1/14	1500	X		I24II-GWIII-99A	3	X		LPM:
1/14	1430	X		I24I-GWIIIDW-BCA	3	X		

Samples by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Relinquished by: (Signature)	Date/Time	Received by Laboratory: (Signature)	Date/Time	Airbill Number:	Sample Shipped by: (Circle)
Jan C. [illegible]	1/14/04 1500				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*

COC # 36109 "A"

Chain of Custody Record

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

Company Name: Baker Env. Inc.	Project Manager or Contact: Tom Trebilcock Phone: (412) 218-3051
Project No.	Project Name: Camp Lejeune - LTM
Dept.: Task:	
Sample Storage Location:	ATO Number:
Page of	Report #:

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	TAL Metals CLP SOW ILM05.0	EA Labs Accession Number	Remarks
1/14	1630	X		IR86-TB08R-1/14A	3	X										LPM:
1/14	1010	X		IR86-TB09R-1/14A	3	X										
1/14	1020	X		IR86-TB10R-1/14A	3	X										
1/14	1105	X		IR86-RB01DW-99A	6	X	X	X					X			
1/14	0915	X		IR86-MW29-1/14A	6	X	X	X					X			
1/14	1310	X		IR86-GW08DW-99A	6	X	X	X					X			
1/14	1425	X		IR86-GW25DW-99A	6	X	X	X					X			
1/14	1500	X		IR86-GW30DW-99A	7	X	X	X		X	X	X	X			
1/13	1655	X		IR41-GW02-99A	1									X		
1/13	1600	X		IR41-GW10-99A	1									X		
1/13	1720	X		IR41-GW12-99A	1									X		
1/14	1500	X		IR41-GW11-99A	1									X		
1/14	1430	X		IR41-GW11DW-99A	1									X		

Samples by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by Laboratory: (Signature)	Date/Time	Airbill Number:	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

ANALYTICAL RESULTS IN GROUNDWATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-GW02-99A	IR41-GW10-99A	IR41-GW11-99A	IR41-GW11DW-99A	IR41-GW12-99A
DATE SAMPLED	1/13/99	1/13/99	1/14/99	1/14/99	1/13/99
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	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
Bromomethane	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	5 U	5 U	5 U	5 U	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	5 U	5 U
trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	5 U	5 U	5 U	5 U	5 U
Xylenes	5 U	5 U	5 U	5 U	5 U

ANALYTICAL RESULTS IN GROUNDWATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-GW02-99A	IR41-GW10-99A	IR41-GW11-99A	IR41-GW11DW-99A	IR41-GW12-99A
DATE SAMPLED	1/13/99	1/13/99	1/14/99	1/14/99	1/13/99
METALS (ug/l)					
Aluminum	339	1520	206	198	150
Antimony	1.2 U	1.2 U	2.1 B	1.2 U	1.2 U
Arsenic	1.6 U	1.6 U	3.2 B	1.6 U	1.6 U
Barium	98 B	47 B	440	36.2 B	25.2 B
Beryllium	0.27 B	0.1 U	0.1 U	0.1 U	0.1 U
Cadmium	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Calcium	144000	9230	106000	141000	38800
Chromium	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U
Cobalt	4.9 B	3.1 U	6.5 B	3.1 U	9.1 B
Copper	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Iron	34700	792	34500	1540	4150
Lead	1 U	1 U	16.6	1 U	1 U
Magnesium	24400	1790 B	17100	4530 B	2220 B
Manganese	455	15.2	310	82.3	68.8
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nickel	5.7 U	5.7 U	20.5 B	5.7 U	5.7 U
Potassium	17300	161 U	22200	1400 B	709 B
Selenium	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Silver	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Sodium	25100 E	14900 E	26700 E	120000 E	8210 E
Thallium	1 U	1 U	1 U	1 U	1 U
Vanadium	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
Zinc	11.9 U	11.9 U	27.9	11.9 U	16 B

ANALYTICAL RESULTS IN GROUNDWATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-DDSD01-99A	IR41-DDSD02-99A	IR41-TCSD03-99A	IR41-TCSD10-99A	IR41-TCSD11-99A	IR41-TCSD12-99A	IR41-UTSD01-99A	IR41-UTSD02-99A
DATE SAMPLED	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99
VOLATILES (ug/kg)								
1,1,1-Trichloroethane	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
1,1,2,2-Tetrachloroethane	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
1,1,2-Trichloroethane	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
1,1-Dichloroethane	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
1,1-Dichloroethene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
1,2-Dichloroethane	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
1,2-Dichloropropane	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
2-Butanone	18 U	36 U	12 U	15 U	15 U	13 U	13 U	12 U
2-Hexanone	18 U	36 U	12 U	15 U	15 U	13 U	13 U	12 U
4-Methyl-2-pentanone	18 U	36 U	12 U	15 U	15 U	13 U	13 U	12 U
Acetone	110	36 U	12 U	30	38	13 U	13 U	12 U
Benzene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Bromodichloromethane	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Bromoform	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Bromomethane	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Carbon disulfide	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Carbon tetrachloride	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Chlorobenzene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Chloroethane	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Chloroform	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Chloromethane	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
cis-1,2-Dichloroethene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
cis-1,3-Dichloropropene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Dibromochloromethane	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Ethylbenzene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Methylene chloride	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Styrene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Tetrachloroethene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Toluene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
trans-1,2-Dichloroethene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
trans-1,3-Dichloropropene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Trichloroethene	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Vinyl chloride	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U
Xylenes	9 U	18 U	6 U	8 U	7 U	7 U	7 U	6 U

ANALYTICAL RESULTS IN GROUNDWATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-DDSD01-99A	IR41-DDSD02-99A	IR41-TCSD03-99A	IR41-TCSD10-99A	IR41-TCSD11-99A	IR41-TCSD12-99A	IR41-UTSD01-99A	IR41-UTSD02-99A
DATE SAMPLED	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99
METALS (mg/kg)								
Aluminum	2760	4200	186	1390	841	1510	2050	223
Antimony	0.41 U	1.1 B	0.29 U	0.35 U	0.33 U	0.3 U	0.3 U	0.29 U
Arsenic	0.79 B	1.1 B	0.39 U	0.46 U	0.44 U	0.4 U	0.4 U	0.38 U
Barium	33 B	43.3 B	1.2 B	11.5 B	19.6 B	18.8 B	11.4 B	4.9 B
Beryllium	0.34 U	0.7 U	0.24 U	0.29 U	0.27 U	0.25 U	0.25 U	0.24 U
Cadmium	0.1 U	0.78 B	0.07 U	0.09 U	0.08 B	0.2 B	0.08 U	0.07 U
Calcium	1840	10400	177 B	572	1050	1240	1370	178 B
Chromium	3.3 B	5.3 B	0.7 U	1.7 B	1.1 B	1.9 B	10.3	0.68999 U
Cobalt	1.1 U	16.9 B	0.75 U	0.9 U	0.85 U	1.7 B	0.78 U	0.74 U
Copper	0.37 U	12.3	0.27 U	0.32 U	0.3 U	0.28 U	5.2	0.26 U
Iron	27500	11500	168	2040	1270	2260	1230	221
Lead	12.7	17.3	1.4	4.7	3	13.3	25.2	4.4
Magnesium	134 B	437 B	7 U	50.7 B	47.7 B	41.4 B	48.3 B	8.2 B
Manganese	33.4	119	0.53 B	4 B	8.6	7.9	2.8 B	0.46 B
Mercury	0.1 B	0.21 B	0.06 B	0.06 B	0.1 B	0.23	0.09 B	0.07 B
Nickel	2.6 B	7.5 B	1.4 U	1.7 U	1.6 U	2 B	1.4 U	1.4 U
Potassium	58.7 B	144 B	38.9 U	60 B	43.9 U	40.4 U	40.4 U	38.4 U
Selenium	2	4.1	0.61 B	0.72 U	0.83 B	0.98 B	0.96 B	0.6 U
Silver	0.24 U	0.49 U	0.17 U	0.2 U	0.19 U	0.18 U	0.18 U	0.17 U
Sodium	143 B	308 B	64.4 B	105 B	80 B	77.7 B	69.3 B	53.3 B
Thallium	0.34 U	0.72 U	0.24 U	0.29 U	0.27 U	0.25 U	0.26 U	0.23 U
Vanadium	4.1 B	11.3 B	0.53 U	2.5 B	1.3 B	2.5 B	2.8 B	0.6 B
Zinc	32.7	57.6	5.3	7.6	10	20.5	17.4	3.3 B

ANALYTICAL RESULTS IN GROUNDWATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	41-DDSW01-99A	IR41-DDSW02-99A	IR41-TCSW10-99A	IR41-TCSW11-99A	IR41-TCSW12-99A	IR41-UTSW01-99A	IR41-UTSW02-99A	IR41-UTSW03-99A
DATE SAMPLED	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99
VOLATILES (ug/l)								
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromomethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylenes	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

ANALYTICAL RESULTS IN GROUNDWATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	41-DDSW01-99A	IR41-DDSW02-99A	IR41-TCSW10-99A	IR41-TCSW11-99A	IR41-TCSW12-99A	IR41-UTSW01-99A	IR41-UTSW02-99A	IR41-UTSW03-99A
DATE SAMPLED	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99	1/13/99
METALS (ug/l)								
Aluminum	148	142	707	333	144	334	159	161
Antimony	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Arsenic	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Barium	54.9 B	54.3 B	32.9 B	28.9 B	25.8 B	31.8 B	30.5 B	27.6 B
Beryllium	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Cadmium	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Calcium	45200	81300	19300	17800	15600	43800	38800	36000
Chromium	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U	2.9 U
Cobalt	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Copper	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Iron	1110	1310	1460	1560	3810	682	724	706
Lead	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Magnesium	5100	9150	1770 B	1750 B	1580 B	1850 B	2320 B	2000 B
Manganese	32.1	463	34.5	16.6	38.4	16.2	26	19.1
Mercury	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Nickel	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U	5.7 U
Potassium	4310 B	6280	2110 B	2210 B	1850 B	2120 B	1560 B	1390 B
Selenium	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Silver	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Sodium	14500 E	30600 E	18100 E	17300 E	13900 E	26100 E	14000 E	13900 E
Thallium	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vanadium	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.5 B	2.2 U	2.2 U
Zinc	24.7	11.9 U	11.9 U	12.4 B	11.9 U	14.6 B	11.9 U	11.9 U

ATTACHMENT C
ANALYTICAL LABORATORY DATA SHEETS

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR41TCSW1299A

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900137

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0899.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. _____ Date Analyzed: 1/16/99

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

IR41UTSW0199A

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900140

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0900.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. _____ Date Analyzed: 1/16/99

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

EPA SAMPLE NO.

IR41TCSW1099A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900142

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0901.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. _____ Date Analyzed: 1/16/99

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

IR41TCSW1199A

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900144

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0902.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. Date Analyzed: 1/16/99

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

IR41UTSW0399A

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900146

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0903.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. _____ Date Analyzed: 1/16/99

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

IR41UTSW0299A

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900147

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0904.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. _____ Date Analyzed: 1/16/99

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

IR41DDSW0299A

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900150

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0905.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. _____ Date Analyzed: 1/16/99

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

IR41DDSW0199A

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900151

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0906.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. _____ Date Analyzed: 1/16/99

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

IR41GW1299A

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900153

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0907.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. _____ Date Analyzed: 1/16/99

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

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR41GW0299A

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900154

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0908.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. Date Analyzed: 1/16/99

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

IR41GW1099A

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900155

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0909.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. Date Analyzed: 1/16/99

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

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR41TB0199A

Lab Name: EA LABORATORIES Contract: 990025

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

Matrix: (soil/water) WATER Lab Sample ID: 9900156

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0912.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. Date Analyzed: 1/16/99

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-TC-SD12-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900138

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5438.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 26 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	7	U
75-01-4	Vinyl Chloride	7	U
74-83-9	Bromomethane	7	U
75-00-3	Chloroethane	7	U
67-64-1	Acetone	13	U
75-35-4	1,1-Dichloroethene	7	U
75-09-2	Methylene Chloride	7	U
75-15-0	Carbon Disulfide	7	U
156-59-2	cis-1,2-Dichloroethene	7	U
156-60-5	trans-1,2-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	7	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
107-06-2	1,2-Dichloroethane	7	U
71-43-2	Benzene	7	U
79-01-6	Trichloroethene	7	U
78-87-5	1,2-Dichloropropane	7	U
75-27-4	Bromodichloromethane	7	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	7	U
108-88-3	Toluene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
79-00-5	1,1,2-Trichloroethane	7	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	7	U
124-48-1	Chlorodibromomethane	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
95-47-6	Xylenes (total)	7	U
100-42-5	Styrene	7	U
75-25-2	Bromoform	7	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-TC-SD12-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900138

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5438.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 26 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	Q
79-34-5	1,1,2,2-Tetrachloroethane	7	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-UT-SD01-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900139

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5439.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 26 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	7	U
75-01-4	Vinyl Chloride	7	U
74-83-9	Bromomethane	7	U
75-00-3	Chloroethane	7	U
67-64-1	Acetone	13	U
75-35-4	1,1-Dichloroethene	7	U
75-09-2	Methylene Chloride	7	U
75-15-0	Carbon Disulfide	7	U
156-59-2	cis-1,2-Dichloroethene	7	U
156-60-5	trans-1,2-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	7	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
107-06-2	1,2-Dichloroethane	7	U
71-43-2	Benzene	7	U
79-01-6	Trichloroethene	7	U
78-87-5	1,2-Dichloropropane	7	U
75-27-4	Bromodichloromethane	7	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	7	U
108-88-3	Toluene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
79-00-5	1,1,2-Trichloroethane	7	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	7	U
124-48-1	Chlorodibromomethane	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
95-47-6	Xylenes (total)	7	U
100-42-5	Styrene	7	U
75-25-2	Bromoform	7	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-UT-SD01-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900139

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5439.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 26 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
79-34-5	1,1,2,2-Tetrachloroethane	7	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-TC-SD10-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900141

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5440.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 33 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	8	U
75-01-4	Vinyl Chloride	8	U
74-83-9	Bromomethane	8	U
75-00-3	Chloroethane	8	U
67-64-1	Acetone	30	
75-35-4	1,1-Dichloroethene	8	U
75-09-2	Methylene Chloride	8	U
75-15-0	Carbon Disulfide	8	U
156-59-2	cis-1,2-Dichloroethene	8	U
156-60-5	trans-1,2-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
78-93-3	2-Butanone	15	U
67-66-3	Chloroform	8	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
107-06-2	1,2-Dichloroethane	8	U
71-43-2	Benzene	8	U
79-01-6	Trichloroethene	8	U
78-87-5	1,2-Dichloropropane	8	U
75-27-4	Bromodichloromethane	8	U
108-10-1	4-Methyl-2-Pentanone	15	U
10061-01-5	cis-1,3-Dichloropropene	8	U
108-88-3	Toluene	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
79-00-5	1,1,2-Trichloroethane	8	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	8	U
124-48-1	Chlorodibromomethane	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
95-47-6	Xylenes (total)	8	U
100-42-5	Styrene	8	U
75-25-2	Bromoform	8	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-TC-SD10-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900141

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5440.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 33 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
79-34-5	1,1,2,2-Tetrachloroethane	8	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-TC-SD11-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900143

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5441.D

Level: (low/med) LOW Date Received: 1/27/99

% Moisture: not dec. 32 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	7	U
75-01-4	Vinyl Chloride	7	U
74-83-9	Bromomethane	7	U
75-00-3	Chloroethane	7	U
67-64-1	Acetone	38	
75-35-4	1,1-Dichloroethene	7	U
75-09-2	Methylene Chloride	7	U
75-15-0	Carbon Disulfide	7	U
156-59-2	cis-1,2-Dichloroethene	7	U
156-60-5	trans-1,2-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
78-93-3	2-Butanone	15	U
67-66-3	Chloroform	7	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
107-06-2	1,2-Dichloroethane	7	U
71-43-2	Benzene	7	U
79-01-6	Trichloroethene	7	U
78-87-5	1,2-Dichloropropane	7	U
75-27-4	Bromodichloromethane	7	U
108-10-1	4-Methyl-2-Pentanone	15	U
10061-01-5	cis-1,3-Dichloropropene	7	U
108-88-3	Toluene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
79-00-5	1,1,2-Trichloroethane	7	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	7	U
124-48-1	Chlorodibromomethane	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
95-47-6	Xylenes (total)	7	U
100-42-5	Styrene	7	U
75-25-2	Bromoform	7	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-TC-SD11-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900143

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5441.D

Level: (low/med) LOW Date Received: 1/27/99

% Moisture: not dec. 32 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
79-34-5	1,1,2,2-Tetrachloroethane	7	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-TC-SD03-99A

UT-SD03

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900145

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5442.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 20 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
75-09-2	Methylene Chloride	6	U
75-15-0	Carbon Disulfide	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Chlorodibromomethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
95-47-6	Xylenes (total)	6	U
100-42-5	Styrene	6	U
75-25-2	Bromoform	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-TC-SD03-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900145

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5442.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 20 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	Q
79-34-5	1,1,2,2-Tetrachloroethane	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-UT-SD02-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900148

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5443.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 19 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
75-09-2	Methylene Chloride	6	U
75-15-0	Carbon Disulfide	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Chlorodibromomethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
95-47-6	Xylenes (total)	6	U
100-42-5	Styrene	6	U
75-25-2	Bromoform	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-UT-SD02-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900148

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5443.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 19 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
79-34-5	1,1,2,2-Tetrachloroethane	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-DD-SD02-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900149

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5444.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 73 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	18	U
75-01-4	Vinyl Chloride	18	U
74-83-9	Bromomethane	18	U
75-00-3	Chloroethane	18	U
67-64-1	Acetone	36	U
75-35-4	1,1-Dichloroethene	18	U
75-09-2	Methylene Chloride	18	U
75-15-0	Carbon Disulfide	18	U
156-59-2	cis-1,2-Dichloroethene	18	U
156-60-5	trans-1,2-Dichloroethene	18	U
75-34-3	1,1-Dichloroethane	18	U
78-93-3	2-Butanone	36	U
67-66-3	Chloroform	18	U
71-55-6	1,1,1-Trichloroethane	18	U
56-23-5	Carbon Tetrachloride	18	U
107-06-2	1,2-Dichloroethane	18	U
71-43-2	Benzene	18	U
79-01-6	Trichloroethene	18	U
78-87-5	1,2-Dichloropropane	18	U
75-27-4	Bromodichloromethane	18	U
108-10-1	4-Methyl-2-Pentanone	36	U
10061-01-5	cis-1,3-Dichloropropene	18	U
108-88-3	Toluene	18	U
10061-02-6	trans-1,3-Dichloropropene	18	U
79-00-5	1,1,2-Trichloroethane	18	U
591-78-6	2-Hexanone	36	U
127-18-4	Tetrachloroethene	18	U
124-48-1	Chlorodibromomethane	18	U
108-90-7	Chlorobenzene	18	U
100-41-4	Ethylbenzene	18	U
95-47-6	Xylenes (total)	18	U
100-42-5	Styrene	18	U
75-25-2	Bromoform	18	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-DD-SD02-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900149

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5444.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 73 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
79-34-5	1,1,2,2-Tetrachloroethane	18	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-DD-SD01-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900152

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5445.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 44 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-DD-SD01-99A

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900152

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5445.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. 44 Date Analyzed: 1/19/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
79-34-5	1,1,2,2-Tetrachloroethane	9	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-DD-SD01-99ARE

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900152RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5473.D

Level: (low/med) LOW Date Received: 1/15/98

% Moisture: not dec. 44 Date Analyzed: 1/21/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	9	U
75-01-4	Vinyl Chloride	9	U
74-83-9	Bromomethane	9	U
75-00-3	Chloroethane	9	U
67-64-1	Acetone	110	
75-35-4	1,1-Dichloroethene	9	U
75-09-2	Methylene Chloride	9	U
75-15-0	Carbon Disulfide	9	U
156-59-2	cis-1,2-Dichloroethene	9	U
156-60-5	trans-1,2-Dichloroethene	9	U
75-34-3	1,1-Dichloroethane	9	U
78-93-3	2-Butanone	18	U
67-66-3	Chloroform	9	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
107-06-2	1,2-Dichloroethane	9	U
71-43-2	Benzene	9	U
79-01-6	Trichloroethene	9	U
78-87-5	1,2-Dichloropropane	9	U
75-27-4	Bromodichloromethane	9	U
108-10-1	4-Methyl-2-Pentanone	18	U
10061-01-5	cis-1,3-Dichloropropene	9	U
108-88-3	Toluene	9	U
10061-02-6	trans-1,3-Dichloropropene	9	U
79-00-5	1,1,2-Trichloroethane	9	U
591-78-6	2-Hexanone	18	U
127-18-4	Tetrachloroethene	9	U
124-48-1	Chlorodibromomethane	9	U
108-90-7	Chlorobenzene	9	U
100-41-4	Ethylbenzene	9	U
95-47-6	Xylenes (total)	9	U
100-42-5	Styrene	9	U
75-25-2	Bromoform	9	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR41-DD-SD01-99ARE

Lab Name: EA LABORATORIES Contract: 1E+06

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

Matrix: (soil/water) SOIL Lab Sample ID: #9900152RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VJ9A5473.D

Level: (low/med) LOW Date Received: 1/15/98

% Moisture: not dec. 44 Date Analyzed: 1/21/99

GC Column: RTX 502.2 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS No.	Compound		Q
79-34-5	1,1,2,2-Tetrachloroethane	9	U

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

T00138

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00138

Matrix (soil/water): SOIL Lab Sample ID: TCSD1299A @2/15/99 IR41

Level (low/med): LOW Date Received: 01/15/99

% Solids: 74.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1510			P
7440-36-0	Antimony	0.30	U	N	P
7440-38-2	Arsenic	0.40	U		P
7440-39-3	Barium	18.8	B		P
7440-41-7	Beryllium	0.25	U		P
7440-43-9	Cadmium	0.20	B		P
7440-70-2	Calcium	1240			P
7440-47-3	Chromium	1.9	B		P
7440-48-4	Cobalt	1.7	B		P
7440-50-8	Copper	0.28	U		P
7439-89-6	Iron	2260		@2/15/99	P
7439-92-1	Lead	13.3		N*	P
7439-95-4	Magnesium	41.4	B		P
7439-96-5	Manganese	7.9			P
7439-97-6	Mercury	0.23			CV
7440-02-0	Nickel	2.0	B		P
7440-09-7	Potassium	40.4	U		P
7782-49-2	Selenium	0.98	B		P
7440-22-4	Silver	0.18	U		P
7440-23-5	Sodium	77.7	B		P
7440-28-0	Thallium	0.25	U		F
7440-62-2	Vanadium	2.5	B		P
7440-66-6	Zinc	20.5			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
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ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00139

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00138

Matrix (soil/water): SOIL ~~Lab~~ @ 2/15/99 IR41 Sample ID: UTSD0199A

Level (low/med): LOW Date Received: 01/15/99

% Solids: 74.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2050			P
7440-36-0	Antimony	0.30	U	N	P
7440-38-2	Arsenic	0.40	U		P
7440-39-3	Barium	11.4	B		P
7440-41-7	Beryllium	0.25	U		P
7440-43-9	Cadmium	0.08	U		P
7440-70-2	Calcium	1370			P
7440-47-3	Chromium	10.3			P
7440-48-4	Cobalt	0.78	U		P
7440-50-8	Copper	5.2			P
7439-89-6	Iron	1230		@ 2/15/99	P
7439-92-1	Lead	25.2		~~N~~ *	P
7439-95-4	Magnesium	48.3	B		P
7439-96-5	Manganese	2.8	B		P
7439-97-6	Mercury	0.09	B		CV
7440-02-0	Nickel	1.4	U		P
7440-09-7	Potassium	40.4	U		P
7782-49-2	Selenium	0.96	B		P
7440-22-4	Silver	0.18	U		P
7440-23-5	Sodium	69.3	B		P
7440-28-0	Thallium	0.26	U		F
7440-62-2	Vanadium	2.8	B		P
7440-66-6	Zinc	17.4			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
SEDIMENT
TOTAL

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

T00141

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00138

Matrix (soil/water): SOIL ~~Lab~~ Sample ID: TCSD1099A Q 2/15/99 IT241

Level (low/med): LOW Date Received: 01/15/99

% Solids: 66.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1390			P
7440-36-0	Antimony	0.35	U	N	P
7440-38-2	Arsenic	0.46	U		P
7440-39-3	Barium	11.5	B		P
7440-41-7	Beryllium	0.29	U		P
7440-43-9	Cadmium	0.09	U		P
7440-70-2	Calcium	572			P
7440-47-3	Chromium	1.7	B		P
7440-48-4	Cobalt	0.90	U		P
7440-50-8	Copper	0.32	U		P
7439-89-6	Iron	2040		Q 2/15/99	P
7439-92-1	Lead	4.7		~~N~~ N*	P
7439-95-4	Magnesium	50.7	B		P
7439-96-5	Manganese	4.0	B		P
7439-97-6	Mercury	0.06	B		CV
7440-02-0	Nickel	1.7	U		P
7440-09-7	Potassium	60.0	B		P
7782-49-2	Selenium	0.72	U		P
7440-22-4	Silver	0.20	U		P
7440-23-5	Sodium	105	B		P
7440-28-0	Thallium	0.29	U		F
7440-62-2	Vanadium	2.5	B		P
7440-66-6	Zinc	7.6			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
SEDIMENT
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00143

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00138

Matrix (soil/water): SOIL Lab Sample ID: TCSD1199A @ 2/15/99 JR41

Level (low/med): LOW Date Received: 01/15/99

% Solids: 67.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	841			P
7440-36-0	Antimony	0.33	U	N	P
7440-38-2	Arsenic	0.44	U		P
7440-39-3	Barium	19.6	B		P
7440-41-7	Beryllium	0.27	U		P
7440-43-9	Cadmium	0.08	B		P
7440-70-2	Calcium	1050			P
7440-47-3	Chromium	1.1	B		P
7440-48-4	Cobalt	0.85	U		P
7440-50-8	Copper	0.30	U		P
7439-89-6	Iron	1270			P
7439-92-1	Lead	3.0		N*	P
7439-95-4	Magnesium	47.7	B		P
7439-96-5	Manganese	8.6			P
7439-97-6	Mercury	0.10	B		CV
7440-02-0	Nickel	1.6	U		P
7440-09-7	Potassium	43.9	U		P
7782-49-2	Selenium	0.83	B		P
7440-22-4	Silver	0.19	U		P
7440-23-5	Sodium	80.0	B		P
7440-28-0	Thallium	0.27	U		F
7440-62-2	Vanadium	1.3	B		P
7440-66-6	Zinc	10.0			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
SEDIMENT
TOTAL

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

T00145

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00138

Matrix (soil/water): SOIL ~~Lab~~ @2/15/99 IC41 Sample ID: UTSD0399A

Level (low/med): LOW Date Received: 01/15/99

% Solids: 80.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	186			P
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	0.39	U		P
7440-39-3	Barium	1.2	B		P
7440-41-7	Beryllium	0.24	U		P
7440-43-9	Cadmium	0.07	U		P
7440-70-2	Calcium	177	B		P
7440-47-3	Chromium	0.70	U		P
7440-48-4	Cobalt	0.75	U		P
7440-50-8	Copper	0.27	U		P
7439-89-6	Iron	168		@2/15/99	P
7439-92-1	Lead	1.4		~~N~~ W*	P
7439-95-4	Magnesium	7.0	U		P
7439-96-5	Manganese	0.53	B		P
7439-97-6	Mercury	0.06	B		CV
7440-02-0	Nickel	1.4	U		P
7440-09-7	Potassium	38.9	U		P
7782-49-2	Selenium	0.61	B		P
7440-22-4	Silver	0.17	U		P
7440-23-5	Sodium	64.4	B		P
7440-28-0	Thallium	0.24	U		F
7440-62-2	Vanadium	0.53	U		P
7440-66-6	Zinc	5.3			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
SEDIMENT
TOTAL

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

T00148

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00138

Matrix (soil/water): SOIL @ 2/15/99 JR41 ~~Lab~~ Sample ID: UTSD0299A

Level (low/med): LOW Date Received: 01/15/99

% Solids: 81.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	223			P
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	0.38	U		P
7440-39-3	Barium	4.9	B		P
7440-41-7	Beryllium	0.24	U		P
7440-43-9	Cadmium	0.07	U		P
7440-70-2	Calcium	178	B		P
7440-47-3	Chromium	0.69	U		P
7440-48-4	Cobalt	0.74	U		P
7440-50-8	Copper	0.26	U		P
7439-89-6	Iron	221		@ 2/15/99	P
7439-92-1	Lead	4.4		N*	P
7439-95-4	Magnesium	8.2	B		P
7439-96-5	Manganese	0.46	B		P
7439-97-6	Mercury	0.07	B		CV
7440-02-0	Nickel	1.4	U		P
7440-09-7	Potassium	38.4	U		P
7782-49-2	Selenium	0.60	U		P
7440-22-4	Silver	0.17	U		P
7440-23-5	Sodium	53.3	B		P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	0.60	B		P
7440-66-6	Zinc	3.3	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
SEDIMENT
TOTAL

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

T00149

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00138

Matrix (soil/water): SOIL ~~Lab~~ Sample ID: DDSD0299A @2/15/99 JR41

Level (low/med): LOW Date Received: 01/15/99

% Solids: 27.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4200			P
7440-36-0	Antimony	1.1	B	N	P
7440-38-2	Arsenic	1.1	B		P
7440-39-3	Barium	43.3	B		P
7440-41-7	Beryllium	0.70	U		P
7440-43-9	Cadmium	0.78	B		P
7440-70-2	Calcium	10400			P
7440-47-3	Chromium	5.3	B		P
7440-48-4	Cobalt	16.9	B		P
7440-50-8	Copper	12.3			P
7439-89-6	Iron	11500		@2/15/99	P
7439-92-1	Lead	17.3		N*	P
7439-95-4	Magnesium	437	B		P
7439-96-5	Manganese	119			P
7439-97-6	Mercury	0.21	B		CV
7440-02-0	Nickel	7.5	B		P
7440-09-7	Potassium	144	B		P
7782-49-2	Selenium	4.1			P
7440-22-4	Silver	0.49	U		P
7440-23-5	Sodium	308	B		P
7440-28-0	Thallium	0.72	U	W	F
7440-62-2	Vanadium	11.3	B		P
7440-66-6	Zinc	57.6			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
SEDIMENT
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00152

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00138

Matrix (soil/water): SOIL ~~Lab~~ @2/15/99 JR41 Sample ID: 1 DDSD0199A

Level (low/med): LOW Date Received: 01/15/99

% Solids: 55.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2760			P
7440-36-0	Antimony	0.41	U	N	P
7440-38-2	Arsenic	0.79	B		P
7440-39-3	Barium	33.0	B		P
7440-41-7	Beryllium	0.34	U		P
7440-43-9	Cadmium	0.10	U		P
7440-70-2	Calcium	1840			P
7440-47-3	Chromium	3.3	B		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	0.37	U		P
7439-89-6	Iron	27500		@2/15/99	P
7439-92-1	Lead	12.7		~~N~~ *	P
7439-95-4	Magnesium	134	B		P
7439-96-5	Manganese	33.4			P
7439-97-6	Mercury	0.10	B		CV
7440-02-0	Nickel	2.6	B		P
7440-09-7	Potassium	58.7	B		P
7782-49-2	Selenium	2.0			P
7440-22-4	Silver	0.24	U		P
7440-23-5	Sodium	143	B		P
7440-28-0	Thallium	0.34	U	W	F
7440-62-2	Vanadium	4.1	B		P
7440-66-6	Zinc	32.7			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
SEDIMENT
TOTAL

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

T00140

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: IR41UTSN0199 @2/16/99 SW @2/16/99

Level (low/med): LOW Date Received: 01/15/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	334			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	31.8	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	43800			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	3.1	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	682			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	1850	B		P
7439-96-5	Manganese	16.2			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	2120	B		P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	26100		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.5	B		P
7440-66-6	Zinc	14.6	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
WATER
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00142

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: IR41TCSW1099A @2/16/99

Level (low/med): LOW Date Received: 01/15/99 @2/16/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	707			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	32.9	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	19300			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	3.1	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	1460			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	1770	B		P
7439-96-5	Manganese	34.5			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	2110	B		P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	18100		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	11.9	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
WATER
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00144

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: IR41TCSW11 @2/16/99

Level (low/med): LOW Date Received: 01/15/99 @2/16/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	333			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	28.9	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	17800			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	3.1	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	1560			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	1750	B		P
7439-96-5	Manganese	16.6			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	2210	B		P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	17300		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	12.4	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
WATER
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00146

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: IR41UTSW0399A @2/16/99 @2/16/99

Level (low/med): LOW Date Received: 01/15/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	161			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	27.6	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	36000			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	3.1	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	706			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	2000	B		P
7439-96-5	Manganese	19.1			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	1390	B		P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	13900		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	11.9	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
WATER
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00147

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: IR41UTSW02 @2/16/99 99A @2/16/99

Level (low/med): LOW Date Received: 01/15/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	159			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	30.5	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	38800			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	3.1	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	724			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	2320	B		P
7439-96-5	Manganese	26.0			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	1560	B		P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	14000		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	11.9	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
WATER
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00150

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: ~~IR41DDSW02~~ IR41DDSW02 @ 2/16/99 IR41DDSW02 @ 2/16/99

Level (low/med): LOW Date Received: 01/15/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	142			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	54.3	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	81300			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	3.1	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	1310			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	9150			P
7439-96-5	Manganese	463			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	6280			P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	30600		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	11.9	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments: [redacted]
WATER
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO. [redacted]

1

INORGANIC ANALYSIS DATA SHEET

T00151

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: IR41DDSW0199A @2/16/99 @2/16/99

Level (low/med): LOW Date Received: 01/15/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	148			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	54.9	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	45200			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	3.1	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	1110			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	5100			P
7439-96-5	Manganese	32.1			P
7439-97-6	Mercury	0.10	U	W	CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	4310	B		P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	14500		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	24.7			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments: [redacted]
WATER
TOTAL

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

IR41GW1199A

Lab Name: EA LABORATORIES Contract: 990024

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

Matrix: (soil/water) WATER Lab Sample ID: 9900135

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0927.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. Date Analyzed: 1/17/99

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

IR41GW11DW99A

Lab Name: EA LABORATORIES Contract: 990024

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

Matrix: (soil/water) WATER Lab Sample ID: 9900136

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC3A0928.D

Level: (low/med) LOW Date Received: 1/15/99

% Moisture: not dec. Date Analyzed: 1/17/99

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

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00132

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: ~~IR41GW0299~~ IR41GW0299A @2/16/99

Level (low/med): LOW Date Received: 01/15/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	339			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	98.0	B		P
7440-41-7	Beryllium	0.27	B		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	144000			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	4.9	B		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	34700			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	24400			P
7439-96-5	Manganese	455			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	17300			P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	25100		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	11.9	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
WATER
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00133

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: ~~IRQ41GW109~~ IR41GW109A @2/16/99 @2/16/99

Level (low/med): LOW Date Received: 01/15/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1520			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	47.0	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	9230			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	3.1	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	792			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	1790	B		P
7439-96-5	Manganese	15.2			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	161	U		P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	14900		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	11.9	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
WATER
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00134

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER ~~Lab~~ Sample ID: ~~IRQ41GW129~~ IR41GW1299A @ 2/16/99 @ 2/16/99

Level (low/med): LOW Date Received: 01/15/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	150			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	25.2	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	38800			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	9.1	B		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	4150			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	2220	B		P
7439-96-5	Manganese	68.8			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	709	B		P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	8210		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	16.0	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
WATER
TOTAL

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

T00135

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: ~~IRQ41GW119~~ IR41GW1199A @2/16/99 @2/16/99

Level (low/med): LOW Date Received: 01/15/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	206			P
7440-36-0	Antimony	2.1	B		P
7440-38-2	Arsenic	3.2	B		P
7440-39-3	Barium	440			P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	106000			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	6.5	B		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	34500			P
7439-92-1	Lead	16.6			P
7439-95-4	Magnesium	17100			P
7439-96-5	Manganese	310			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	20.5	B		P
7440-09-7	Potassium	22200			P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	26700		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	27.9			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
WATER
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00136

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: IRQ41GW11DW9 @2/16/99

Level (low/med): LOW Date Received: 01/15/99 @2/16/99

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	198			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	36.2	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	141000			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	3.1	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	1540			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	4530	B		P
7439-96-5	Manganese	82.3			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	1400	B		P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	120000		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	11.9	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
WATER
TOTAL

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

T00137

Lab Name: EA LABORATORIES Contract:

Lab Code: EAENG Case No.: SAS No.: SDG No.: T00132

Matrix (soil/water): WATER Lab Sample ID: IR41TCSW1299 @2/16/99

Level (low/med): LOW Date Received: 01/15/99 Q 2/16

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	144			P
7440-36-0	Antimony	1.2	U		P
7440-38-2	Arsenic	1.6	U		P
7440-39-3	Barium	25.8	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	15600			P
7440-47-3	Chromium	2.9	U		P
7440-48-4	Cobalt	3.1	U		P
7440-50-8	Copper	1.1	U		P
7439-89-6	Iron	3810			P
7439-92-1	Lead	1.0	U		P
7439-95-4	Magnesium	1580	B		P
7439-96-5	Manganese	38.4			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	5.7	U		P
7440-09-7	Potassium	1850	B		P
7782-49-2	Selenium	2.5	U	N	P
7440-22-4	Silver	0.70	U		P
7440-23-5	Sodium	13900		E	P
7440-28-0	Thallium	1.0	U	W	F
7440-62-2	Vanadium	2.2	U		P
7440-66-6	Zinc	11.9	U		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:
WATER
TOTAL