

**GW - 114**

**8/93**

# **WORK PLANS**

**GW MONITORS**

# WESTERN WATER CONSULTANTS, INC.

Engineering • Hydrology • Hydrogeology • Waste Management • Construction Administration

611 SKYLINE ROAD, P.O. BOX 4128 • LARAMIE, WYOMING 82071 • (307) 742-0031 • FAX (307) 721-2913

August 25, 1993

RECEIVED

AUG 26 1996

Mr. John Miller  
Environmental Coordinator  
Dowell Schlumberger Incorporated  
300 Schlumberger Drive  
Sugarland, TX 77478

Environmental Bureau  
Oil Conservation Division

**Re:** Groundwater Monitoring Activities at the Dowell Schlumberger Incorporated Facility in Artesia, New Mexico WWC JN 0125

Dear John:

Per your direction, Western Water Consultants Inc. (WWC) conducted additional groundwater monitoring activities on June 22 and 23, 1993 at the Dowell Schlumberger Incorporated (Dowell) Facility in Artesia, New Mexico. Activities included; 1) purging/developing all site monitoring wells of approximately 10 well volumes, and 2) sampling monitoring well MW-3 for EPA Method 8240 analysis. Activities were approved by the State of New Mexico Environmental Department in a letter dated June 29, 1993.

Approximately 10 well volumes were removed from each monitoring well which is part of the semi-annual monitoring program network (Figure 1). A total of 15 were developed. Groundwater originating from monitoring well MW-1 and MW-4 was placed into the truck wash separator system on-site. Based on historical data these two wells contain only aromatic organic contaminants and are not considered hazardous. Ground-water originating from the remaining wells all contain chlorinated compounds and were thus containerized in 55 gallon barrels on-site. Hazardous labels were affixed to each barrel. A total of five barrels are currently being stored on the barrel storage pad at the Artesia facility. Proper disposal is being arranged for this material.

The second objective of this monitoring event was to obtain a sample from monitoring well MW-3. MW-3 was sampled on June 24, with the sample being sent to Cenref Laboratories of Brighton, Colorado for analysis of EPA Method 8240 volatile organic compounds. The laboratory data reports are contained in Attachment A. Table 1 contains the most recent MW-3 data.

#### OTHER LOCATIONS

1949 SUGARLAND DRIVE, SUITE 134  
SHERIDAN, WYOMING 82801  
(307) 672-0761  
FAX (307) 674-4265

701 ANTLER DRIVE, SUITE 233  
CASPER, WY 82601  
(307) 473-2707  
FAX (307) 237-0828

Mr. John Miller  
Page 2  
August 25, 1993

If you have any question or comments please feel free to contact me at 307-742-0031.

Sincerely yours.



Scott Gustin  
Environmental Scientist

SG:sb  
cc: Brent Schindler, 2 copies  
File: 0125-A

TABLE 1.  
RESULTS FROM LABORATORY ANALYSIS OF GROUND-WATER,  
DOWELL SCHLUMBERGER INCORPORATED FACILITY ARTESIA, NEW MEXICO

WELL NUMBER	SAMPLE DATE	BENZENE (mg/L)	ETHYL BENZENE (mg/L)	TOLUENE (mg/L)	XYLENES (mg/L)	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	1,1,2-TCA (mg/L)	TCE (mg/L)	PCE (mg/L)	ACETONE (mg/L)	TPH (mg/L)
MW-3	1/26/91	NA	NA	NA	NA	NA	ND(0.2)	ND(0.2)	NA	NA	ND(0.2)	ND(0.2)	NA
	9/15/91	0.2	1.2	1.2	14	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	0.33	ND(0.2)	ND(0.2)	3.7
	11/22/91	0.11	0.68	0.53	6.8	0.094	0.004	0.19	0.11	0.057	0.15	0.002*	38
	3/16/93	ND(0.001)	1.0	0.65	8.6	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	NA
dup.	3/16/93	0.13	0.78	0.54	9.0	ND(0.001)	ND(0.001)	0.044	0.26	ND(0.001)	0.33	ND(0.001)	0.811
	6/24/93	0.14	1	0.52	9.1	0.14	ND(0.050)	ND(0.050)	0.16	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.50)

Schlumberger

Oilfield Services Shared Resources

John A. Miller  
Remediation Manager

File 90-125 B  
WWC

WESTERN WATER CONSULTANTS, INC.

DEC 30 1994

LARAMIE, WY 82070

Mr. Anthony Moreland, Geologist  
Underground Storage Tank Bureau  
New Mexico Environment Department  
1190 St. Francis Drive  
Santa Fe, NM 87502

RE: Third Quarterly Reporting of Activities at the Dowell Schlumberger Incorporated Facility in Artesia, New Mexico

Dear Tony:

This letter constitutes the third quarterly report of remedial activities at the Dowell Schlumberger Incorporated (Dowell) facility in Artesia, New Mexico for the quarter ending in October 1994, as determined in our meeting with you in November 1993. The report presents the results of ground-water monitoring and data from the operation of the two SVE systems at the facility. Soil vapor extraction (SVE) data through early December 1994 have been included. These activities are overseen by the underground Storage Tank Bureau of the New Mexico Environment Department (NMED-UST Bureau). The second quarterly report submitted to NMED-UST Bureau was dated July 25, 1994.

#### GROUND-WATER MONITORING

Quarterly ground-water monitoring was conducted on October 24 and 25, 1994. Prior to purging wells, static water levels in all monitoring wells were measured with an oil/water interface probe. No floating product was detected in any well. Current and historic water levels are presented in Table 1. A potentiometric surface map generated from the October 1994 data is depicted on Figure 1. The ground-water flow direction is to the northeast, consistent with historic data.

Using dedicated polyethylene bailers, three casing volumes of water were purged from monitoring wells MW-1 through MW-15 before sampling. Using dedicated bailers with volatile organic carbon (VOC) sampling attachments, ground-water samples were collected into VOA vials containing hydrochloric acid preservative supplied by the analytical laboratory. Samples were placed in a cooler with ice immediately after collection and were kept cool until delivery to the laboratory. Samples were analyzed for volatile organics by EPA Method 8240. Results

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Environmental Bureau  
Oil Conservation Division

P.O. Box 2727, Houston, Texas 77252-2727  
300 Schlumberger Drive, Sugar Land, Texas 77478  
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Mr. Anthony Moreland  
December 12, 1994  
Page 2

are presented in Table 2 with previous analytical results for comparison. Copies of the laboratory reports are attached to this letter as Appendix A.

### **SVE SYSTEM OPERATION AND MAINTENANCE**

The remediation system at the Artesia facility consists of two separate soil vapor extraction (SVE) systems (Figure 2). These systems are called the maintenance shop SVE system and the wash bay SVE system based on their proximity to these facility improvements. The maintenance shop SVE system consists of two zones, each with 7 vapor extraction wells. The wash bay SVE system consists of three zones, each with 7 vapor extraction wells. The systems have run almost continuously since startup.

#### **Overall Operation**

The system has operated continuously since the last quarterly report. On September 30, 1994, the vacuum relief valves on both systems were modified to prevent makeup air from entering the systems. This increases the well vacuum to almost 60 inches of water in all zones. Additionally, the operation of the wash bay system was modified to the following daily sequence:

Zone 1	20 hours
Zone 2	2 hours
Zone 3	2 hours

Due to the subsequent drop in concentrations in Zone 1, the wash bay system was returned to 8 hours per zone on December 5, 1994.

The system vacuum is measured at the blower and system manifold. These measurements are reported in Tables 3 and 4. The differences in these two measurements are very small, indicating no plugging of the filters.

#### **Volatile Organics in Soil Vapors**

The concentration of volatile organics in the extracted soil vapor and exhausted vapor are measured during each site visit with an HNu photoionization detector (PID). These data are presented in Tables 5 and 6. Note that the September 30, 1994 measurements include readings both before and after modifications to the vacuum relief valves. Measurements on November 3, 1994 were made with a ThermoEnvironmental Determinator PID and show consistently higher readings.

Mr. Anthony Moreland  
December 12, 1994  
Page 3

Samples of the vapors have been collected for laboratory analysis using EPA Method 8240. These data are presented in Appendix B and summarized in Table 7. A sample was collected on December 5, 1994 but these results are not yet available.

### Maintenance

The systems have been relatively maintenance free. Minor problems have been corrected as they occur. Following is a list of maintenance activities occurring since the last quarterly report:

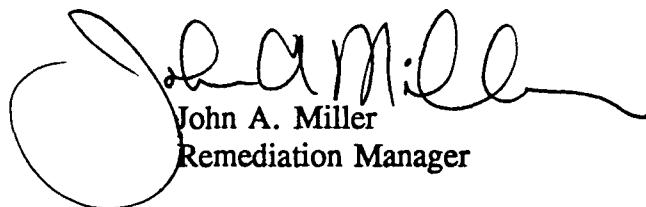
- On September 7, 1994, problems due to heat in the exhaust air were corrected. The steel pipe on the blower exhaust was lengthened. Flexible hose that had become brittle due to heat was replaced.
- On September 30, 1994, one valve actuator was inoperable. The actuator was cleaned, lubricated, and put back on line.
- On December 5, 1994, the controller at the wash bay SVE system was reprogrammed. The program was lost due to an interruption in electrical service.
- Carbon filters have been replaced at a rate of one every other month at the wash bay system.

### ADDITIONAL ACTIVITIES

In early October 1994, 20 additional SVE wells were drilled on Eddy County right of way north of the existing wash bay SVE system. The results of this work were incorporated into the plans and specifications for expansion of the wash bay SVE system into this area. These plans and specifications were submitted to Mr. Jeff Walker of the NMED Groundwater Protection and Remediation Bureau.

Dowell plans to continue operation of both SVE systems and quarterly monitoring of ground water. If you have questions or comments, please contact me.

Sincerely,



John A. Miller  
Remediation Manager

Mr. Anthony Moreland

December 22, 1994

Page 4

cc: Mr. Jeff Walker  
Mr. Brent Schindler  
Western Water Consultants, Inc. - Laramie

**TABLE 1. GROUND-WATER MEASUREMENTS AND ELEVATIONS,  
DOWELL SCHLUMBERGER INCORPORATED, ARTESIA, NEW MEXICO.**

WELL #	DATE	DEPTH TO GROUND WATER (ft)	MEASURING POINT ELEVATION* (ft)	GROUND-WATER ELEVATION* (ft)
MW-1	01/23/91	17.41	100.56	83.15
	09/13/91	16.04		84.52
	11/22/91	14.50		86.06
	03/16/93	13.72		86.84
	01/09/94	14.62		85.94
	04/19/94	14.48		86.08
	07/20/94	14.38		86.18
	10/24/94	14.73		85.83
MW-2	01/23/91	16.95	99.56	82.61
	09/13/91	15.01		84.55
	11/22/91	13.76		85.80
	03/16/93	13.16		86.40
	01/09/94	13.91		85.65
	04/19/94	13.80		85.76
	07/20/94	13.65		85.91
	10/24/94	13.88		85.68
MW-3	01/23/91	17.28	98.33	81.05
	09/13/91	14.66		83.67
	11/22/91	13.63		84.70
	03/16/93	12.89		85.44
	01/09/94	13.66		84.67
	04/19/94	NM		NM
	07/20/94	13.18		85.15
	10/24/94	13.27		85.06
MW-4	01/23/91	20.17	103.18	83.01
	09/13/91	18.54		84.64
	11/22/91	17.15		86.03
	03/16/93	16.49		86.69
	01/09/94	17.28		85.90
	04/19/94	17.15		86.03
	07/20/94	16.99		86.19
	10/24/94	17.25		85.93
MW-5	01/23/91	17.20	99.87	82.67
	09/13/91	15.52		84.35
	11/22/91	14.19		85.68
	03/16/93	13.47		86.40
	01/09/94	14.31		85.56
	04/19/94	14.17		85.70
	07/20/94	13.97		85.90
	10/24/94	14.21		85.66
MW-6	01/23/91	19.59	100.84	81.25
	09/13/91	17.43		83.41
	11/21/91	16.30		84.54
	03/16/93	15.57		85.27
	01/09/94	16.42		84.42
	04/19/94	16.29		84.55
	07/19/94	15.79		85.05
	10/24/94	15.83		85.01
MW-7	01/23/91	19.01	100.23	81.22
	09/13/91	17.43		82.80
	11/21/91	16.00		84.23
	03/16/93	14.91		85.32
	01/09/94	15.99		84.24
	04/19/94	15.83		84.40
	07/19/94	15.24		84.99
	10/24/94	15.32		84.91

**TABLE 1. GROUND-WATER MEASUREMENTS AND ELEVATIONS,  
DOWELL SCHLUMBERGER INCORPORATED, ARTESIA, NEW MEXICO.**

WELL #	DATE	DEPTH TO GROUND WATER (ft)	MEASURING POINT ELEVATION* (ft)	GROUND-WATER ELEVATION* (ft)
MW-8	01/23/91	20.16	101.47	81.31
	09/13/91	18.80		82.67
	11/21/91	17.29		84.18
	03/16/93	16.03		85.44
	01/09/94	17.23		84.24
	04/19/94	17.05		84.42
	07/19/94	16.50		84.97
	10/24/94	16.56		84.91
MW-9	01/26/91	20.08	102.18	82.10
	09/13/91	18.93		83.25
	11/21/91	17.35		84.83
	03/16/93	16.19		85.99
	01/09/94	17.31		84.87
	04/19/94	17.33		84.85
	07/19/94	16.85		85.33
	10/24/94	17.05		85.13
MW-10	01/26/91	19.68	101.34	81.66
	09/13/91	18.56		82.78
	11/21/91	16.96		84.38
	03/16/93	15.64		85.70
	01/09/94	16.89		84.45
	04/19/94	16.73		84.61
	07/19/94	16.29		85.05
	10/24/94	16.39		84.95
MW-11	01/26/91	19.27	100.60	81.33
	09/13/91	17.81		82.79
	11/21/91	16.35		84.25
	03/16/93	15.20		85.40
	01/09/94	16.31		84.29
	04/19/94	16.17		84.43
	07/19/94	15.63		84.97
	10/24/94	15.72		84.88
MW-12	01/26/91	19.24	100.69	81.45
	09/13/91	17.59		83.10
	11/21/91	16.21		84.48
	03/16/93	15.22		85.47
	01/09/94	16.25		84.44
	04/19/94	16.13		84.56
	07/19/94	15.63		85.06
	10/24/94	15.73		84.96
MW-13	09/13/91	15.10	99.25	84.15
	11/21/91	13.95		85.30
	03/16/93	13.22		86.03
	01/09/94	14.03		85.22
	04/19/94	13.90		85.35
	07/20/94	13.70		85.55
	10/24/94	13.86		85.39
	09/13/91	14.60		84.14
MW-14	11/21/91	13.61	98.74	85.13
	03/16/93	13.00		85.74
	01/09/94	13.71		85.03
	04/19/94	13.63		85.11
	07/20/94	13.39		85.35
	10/24/94	13.48		85.26

**TABLE 1. GROUND-WATER MEASUREMENTS AND ELEVATIONS,  
DOWELL SCHLUMBERGER INCORPORATED, ARTESIA, NEW MEXICO.**

WELL #	DATE	DEPTH TO	MEASURING POINT	GROUND-WATER
		GROUND WATER (ft)	ELEVATION* (ft)	ELEVATION* (ft)
MW-15	09/13/91	16.30	100.05	83.75
	11/21/91	15.01		85.04
	03/16/93	13.95		86.10
	01/09/94	14.91		85.14
	04/19/94	14.80		85.25
	07/20/94	14.56		85.49
	10/24/94	14.73		85.32

**NOTES:**

\* = measured from a temporary benchmark of arbitrary elevation = 100.00 feet.

Benchmark is located on the concrete right up against the east shop wall,  
at the northeast corner of the shop.

NM = not measured

TABLE 2.

**RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES,  
DOWELL SCHLUMBERGER INC. FACILITY, ARTESIA, NEW MEXICO**

WELL NUMBER	SAMPLE DATE	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	XYLENES (mg/L)	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	1,1,1-TCA (mg/L)	1,1,2-TCA (mg/L)	TCE (mg/L)	PCE (mg/L)	ACETONE (mg/L)
MW-1	01/26/91 09/15/91	0.033 ND(0.001)	0.029 ND(0.001)	0.13 0.009	ND(0.005) ND(0.001)	ND(0.05) ND(0.01)							
	1/22/91 03/16/93	0.18 0.016	0.026 ND(0.001)	ND(0.001) 0.007	ND(0.001) 0.014	ND(0.005) ND(0.001)	ND(0.01) ND(0.01)						
	01/10/94 04/19/94	0.068 0.035	ND(0.001) ND(0.005)	ND(0.001) ND(0.005)	ND(0.005) ND(0.005)	ND(0.01) ND(0.1)							
	07/20/94 10/25/94	0.008 0.027	ND(0.005) ND(0.005)	ND(0.005) ND(0.005)	ND(0.005) ND(0.005)	ND(0.005) ND(0.005)	ND(0.005) ND(0.005)	ND(0.005) ND(0.005)	ND(0.005) ND(0.005)	ND(0.005) ND(0.005)	ND(0.005) ND(0.005)	ND(0.005) ND(0.005)	ND(0.05) ND(0.1)
MW-2	01/26/91 01/26/91	0.21 0.19	0.45 0.05	0.59 0.062	0.071 0.13	1.7 0.1	0.048 0.043	ND(0.01) ND(0.01)	ND(0.01) ND(0.01)	ND(0.01) ND(0.005)	ND(0.01) ND(0.005)	ND(0.01) ND(0.005)	0.11 0.078
*	11/22/91 03/16/93	0.033 0.019	0.001 ND(0.001)	ND(0.001) ND(0.001)	0.008 0.006	0.088 0.089	0.11 0.06	ND(0.005) ND(0.001)	0.005 0.007	0.018 0.003	ND(0.005) ND(0.001)	ND(0.005) ND(0.001)	0.15 0.064
dup.	01/10/94 04/18/94	0.024 0.045	ND(0.001) ND(0.004J)	ND(0.001) ND(0.005)	0.001 0.028	ND(0.005) ND(0.005)	0.039 0.028	ND(0.001) ND(0.001)	ND(0.001) ND(0.005)	ND(0.001) ND(0.005)	ND(0.001) ND(0.005)	ND(0.001) ND(0.005)	ND(0.01) ND(0.1)
dup.	04/19/94 07/20/94	0.043 0.022	0.005J ND(0.005)	ND(0.005) ND(0.005)	0.03 0.026	ND(0.005) ND(0.005)	ND(0.1) ND(0.1)						
	10/25/94	0.045	ND(0.005)	ND(0.005)	0.008	ND(0.005)	0.03	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.05)
MW-3	01/26/91 09/15/91	NA 0.2	NA 1.2	NA 0.53	NA 0.53	NA 0.55	NA 0.084	NA 0.004	NA 0.19	NA 0.33	NA ND(0.2)	NA ND(0.2)	0.11 0.78
*	1/22/91 03/16/93	0.11 ND(0.001)	1 1	0.68 0.54	0.53 0.54	0.68 0.9	ND(0.001) ND(0.001)	ND(0.001) ND(0.001)	ND(0.001) 0.044	ND(0.001) 0.26	ND(0.001) ND(0.001)	ND(0.001) ND(0.001)	ND(0.05) 0.15
dup.	03/16/93 07/01/93	0.13 0.14	0.78 1	0.54 0.52	0.54 0.7	9 11	ND(0.001) 0.14	ND(0.001) ND(0.05)	ND(0.001) ND(0.05)	ND(0.001) 0.16	ND(0.001) ND(0.05)	ND(0.001) ND(0.05)	ND(0.01) 0.079
dup.	01/10/94 04/18/94	0.14 NA	1 NA	0.7 NA	0.7 NA	0.19 NA	ND(0.1) NA	ND(0.1) NA	ND(0.1) NA	ND(0.1) NA	ND(0.1) NA	ND(0.1) NA	ND(0.1) ND(0.1)
*	07/20/94 10/25/94	0.092 0.13	0.48 0.96	0.16 0.25	0.16 0.42	3 4.2	0.077 0.02J	0.002J 0.038	0.038 0.064	0.069 0.05	ND(0.005) ND(0.05)	ND(0.005) ND(0.05)	0.064 0.13
dup.	10/25/94	0.11	0.83	0.3	4.7	0.18	ND(0.05)	0.051	ND(0.05)	ND(0.05)	0.1	0.024J	ND(0.1)
MW-4	01/26/91 09/15/91	0.098 0.26	0.011 ND(0.002)	ND(0.001) ND(0.002)	0.025 0.015	ND(0.001) 0.008	ND(0.001) ND(0.002)	ND(0.001) 0.019	ND(0.001) ND(0.001)	ND(0.001) ND(0.001)	ND(0.001) ND(0.001)	ND(0.001) ND(0.001)	ND(0.01) ND(0.02)
	1/22/91 03/16/93	0.18 0.072	0.1 ND(0.001)	ND(0.001) ND(0.005)	0.051 0.037	ND(0.001) ND(0.001)	ND(0.001) ND(0.001)	ND(0.001) 0.019	ND(0.001) ND(0.001)	ND(0.001) ND(0.001)	ND(0.001) ND(0.001)	ND(0.001) ND(0.001)	ND(0.01) ND(0.01)
	01/10/94 04/19/94	0.064 0.074	0.074 0.085	ND(0.001) ND(0.005)	ND(0.005) 0.033J	ND(0.001) ND(0.005)	ND(0.01) ND(0.1)						
	07/20/94 10/25/94	0.1 0.14	0.053 0.26	ND(0.005) ND(0.005)	0.004J ND(0.005)	ND(0.005) ND(0.005)	ND(0.1) ND(0.1)						

TABLE 2

**RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES,  
DOWELL SCHLUMBERGER INC. FACILITY, ARTESIA, NEW MEXICO**

TABLE 2.

**RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES,  
DOWELL SCHLUMBERGER INC. FACILITY, ARTESIA, NEW MEXICO**

WELL NUMBER	SAMPLE DATE	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	XYLENES (mg/L)	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	1,1,1-TCA (mg/L)	1,1,2-TCA (mg/L)	TCE (mg/L)	PCE (mg/L)	ACETONE (mg/L)			
MW-9	01/26/91 09/15/91 11/22/91 03/16/93 01/10/94 04/19/94 07/20/94 10/25/94	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) 0.032 0.17 ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.005) ND(0.005) ND(0.005) ND(0.005) ND(0.005) ND(0.005) ND(0.005)	0.022 0.035 0.029 0.012 0.012 0.017 0.017	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	0.002 0.002 0.002 0.001 0.001 ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.005) ND(0.005)
MW-10	01/26/91 09/15/91 11/22/91 03/16/93 01/10/94 04/19/94 07/20/94 10/25/94	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.005) ND(0.005) ND(0.005) ND(0.005) ND(0.005) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	0.004 0.002 0.005 0.025 0.021 0.022 0.052	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	0.017 ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	
MW-11	01/26/91 09/15/91 11/22/91 03/16/93 01/10/94 04/19/94 07/20/94 10/25/94	0.01 0.056 0.048 0.005 0.005 0.009 ND(0.025) 0.009	ND(0.005) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.025) ND(0.005)	ND(0.005) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.025) ND(0.005)	0.045 0.068 0.052 0.04 0.042 0.042 ND(0.025) 0.057	ND(0.005) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.025) 0.067	0.31 0.47 0.39 0.22 0.25 0.17 0.008 0.01J	ND(0.005) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.025) ND(0.005)	ND(0.005) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.025) ND(0.005)	ND(0.005) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.025) ND(0.005)	ND(0.005) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.025) ND(0.005)	ND(0.005) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.025) ND(0.005)	0.14 0.33 0.32 0.16 0.32 0.17 0.36 0.3	ND(0.05) ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.1) ND(0.5) ND(0.1)		
MW-12	01/26/91 09/15/91 11/22/91 03/16/93 01/10/94 04/19/94 07/20/94 10/25/94	0.28 0.15 0.11 0.16 0.16 0.11 0.16 0.66	0.95 0.62 0.43 0.8 0.87 0.26 0.49 ND(0.025)	0.23 0.63 0.034 1.0 0.15 0.25 0.61 0.1	4.5 2.2 0.51 1.0 ND(0.01) ND(0.01) ND(0.01) ND(0.025)	ND(0.025) ND(0.001) ND(0.002) ND(0.001) ND(0.01) ND(0.002J) ND(0.01) ND(0.025)	0.14 0.12 0.11 0.12 0.15 0.11 0.075 0.073	ND(0.025) ND(0.001) ND(0.001) ND(0.001) ND(0.01) ND(0.005) ND(0.025) <td>0.057 0.11 0.1 0.039 0.053 0.084 0.075 ND(0.025)</td> <td>ND(0.025) ND(0.001) ND(0.001) ND(0.001) ND(0.01) ND(0.005) ND(0.025)<td>ND(0.025) ND(0.001) ND(0.001) ND(0.001) ND(0.01) ND(0.005) ND(0.025)</td><td>ND(0.025) ND(0.001) ND(0.001) ND(0.001) ND(0.01) ND(0.005) ND(0.025)</td><td>0.042 0.061 0.051 0.036 0.07 0.024 0.086 0.015J</td><td>ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.1) ND(0.1) ND(0.5) ND(0.1)</td></td>	0.057 0.11 0.1 0.039 0.053 0.084 0.075 ND(0.025)	ND(0.025) ND(0.001) ND(0.001) ND(0.001) ND(0.01) ND(0.005) ND(0.025) <td>ND(0.025) ND(0.001) ND(0.001) ND(0.001) ND(0.01) ND(0.005) ND(0.025)</td> <td>ND(0.025) ND(0.001) ND(0.001) ND(0.001) ND(0.01) ND(0.005) ND(0.025)</td> <td>0.042 0.061 0.051 0.036 0.07 0.024 0.086 0.015J</td> <td>ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.1) ND(0.1) ND(0.5) ND(0.1)</td>	ND(0.025) ND(0.001) ND(0.001) ND(0.001) ND(0.01) ND(0.005) ND(0.025)	ND(0.025) ND(0.001) ND(0.001) ND(0.001) ND(0.01) ND(0.005) ND(0.025)	0.042 0.061 0.051 0.036 0.07 0.024 0.086 0.015J	ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.1) ND(0.1) ND(0.5) ND(0.1)		

TABLE 2.

**RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES,  
DOWELL SCHLUMBERGER INC. FACILITY, ARTESIA, NEW MEXICO**

WELL NUMBER	SAMPLE DATE	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	XYLENES (mg/L)	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	1,1,1-TCA (mg/L)	1,1,2-TCA (mg/L)	TCE (mg/L)	PCE (mg/L)	ACETONE (mg/L)
MW-13	09/15/91 11/22/91 03/18/93 03/18/93 01/10/94 04/19/94 07/20/94 10/25/94	ND(0.001) 0.43 0.033 0.034 ND(0.001) ND(0.005) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005) ND(0.005)	ND(0.005) 0.016 0.013 0.013 ND(0.005) ND(0.005) ND(0.005) ND(0.005)	0.03 0.002 ND(0.001) 0.001 0.015 ND(0.001) 0.007 ND(0.005)	0.038 0.025 ND(0.001) 0.014 0.015 ND(0.001) 0.003J ND(0.005)	0.005 0.002 ND(0.001) 0.014 0.001 ND(0.001) 0.003J ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005)	0.004 0.002 ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005)	0.24 0.11 ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.01)	ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.1)	
MW-14	09/15/91 11/22/91 03/18/93 01/10/94 04/19/94 07/20/94 10/25/94	0.022 ND(0.001) 0.02 0.011 0.005 0.01J 0.01	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.025) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.025) ND(0.005)	0.13 0.14 0.11 0.08 0.057 0.058 0.072	0.002 0.002 0.002 0.001 ND(0.001) ND(0.005) ND(0.025)	0.3 0.31 0.01 0.18 0.1 0.056 0.011J	0.014 0.009 0.01 0.004 ND(0.001) ND(0.005) ND(0.025)	0.001 ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005) ND(0.005)	0.002 0.002 ND(0.001) ND(0.001) ND(0.005) ND(0.005) ND(0.005)	0.46 0.44 ND(0.01) ND(0.01) 0.21 0.3 0.16 ND(0.1) ND(0.5)	ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.01)	
MW-15	09/15/91 11/22/91 03/18/93 01/10/94 04/19/94 07/20/94 10/25/94	0.002 ND(0.001) 0.001 0.008 0.001 ND(0.005) ND(0.005)	0.01 ND(0.001) 0.002 ND(0.001) 0.008 ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005) ND(0.005)	0.006 0.006 0.082 ND(0.001) ND(0.005) 0.027 0.049	0.026 0.001 0.001 0.009 0.004 ND(0.005) ND(0.005)	0.001 0.009 0.013 0.009 0.01 0.005J 0.001J	0.005 ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.001) ND(0.005) ND(0.005)	0.004 0.003 0.006 0.004 0.004 ND(0.005) ND(0.005)	0.024 ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.1) ND(0.1)	ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.01) ND(0.1) ND(0.1)	

NOTES:

- ND(0.001) = chemical not detected at detection limit  
 shown in parentheses  
 dup. = duplicate sample  
 \* = minor amounts of other chemicals also detected  
 (see previous laboratory reports)  
 # = minor amounts of other chemicals also detected  
 (see laboratory reports appended to this letter)  
 NA = not analyzed

## CHEMICAL ABBREVIATIONS:

- TPH = total petroleum hydrocarbons  
 1,1-DCA = 1,1-dichloroethane  
 1,2-DCA = 1,2-dichloroethane  
 1,1-DCE = 1,1-dichloroethylene  
 1,1,1-TCA = 1,1,1-trichloroethane  
 1,1,2-TCA = 1,1,2-trichloroethane  
 TCE = trichloroethene  
 PCE = tetrachloroethene

TABLE 3.

**OPERATIONAL CONDITIONS**  
**MAINTENANCE SHOP SVE SYSTEM**  
**DOWELL SCHLUMBERGER INCORPORATED**  
**ARTESIA, NEW MEXICO**

DATE	HOUR METER	VACUUM (INCHES OF WATER)			
		ZONE 1 MANIFOLD	ZONE 1 BLOWER	ZONE 2 MANIFOLD	ZONE 2 BLOWER
01/31/94	0.0				
02/01/94	5.1	44	48	48	50
02/02/94	23.2			48	50
02/03/94	47.8			41	46
02/10/94	219.4			43	45
02/16/94	362.1	30	35		
02/23/94	531.0			37	41
03/04/94	748.6	27	32		
03/11/94	915.3			37	41
03/18/94	1086.1	28	33		
03/28/94	1325.8	29	34		
04/08/94	1583.0			38	42
04/19/94	1857.6	31	36	33	38
05/06/94	2256.0	46	48	48	50
05/18/94				47	49
06/01/94				51	53
06/16/94	3099.9	49	52	48	51
07/06/94	3100.1	50	52	47	49
07/21/94	3457.6	44	49	52	54
08/09/94	3899.9	51	54	49	52
09/07/94	4093.7	48	50	48	49
09/30/94	4647.1	52	54	49	51
10/11/94	4911.1	53	55	48	51
11/03/94	5445.6	58	60	54	57
12/05/94	6204.9	57	62	57	61

TABLE 4.

**OPERATIONAL CONDITIONS  
WASH BAY SVE SYSTEM  
DOWELL SCHLUMBERGER INCORPORATED  
ARTESIA, NEW MEXICO**

DATE	HOUR METER	VACUUM (INCHES OF WATER)					
		ZONE 1 MANIFOLD	ZONE 1 BLOWER	ZONE 2 MANIFLOD	ZONE 2 BLOWER	ZONE 3 MANIFOLD	ZONE 3 BLOWER
01/31/94	0.0						
02/01/94	5.3	43	44	41	42	43	44
02/02/94	20.6	40	42				
02/03/94	45.3	38	42			43	45
02/10/94	217.7	34	38				
02/16/94	359.7					41	43
02/23/94	528.5					39	42
03/04/94	746.2	32	36				
03/11/94	912.0					39	40
03/18/94	1083.9			33	37		
03/28/94	1322.8	32	36				
04/08/94	1581.2			32	36		
04/19/94	1855.2	31	34	33	36	35	38
05/06/94	2253.8	41	44	45	46	43	44
05/18/94						43	44
06/01/94		44	44				
06/16/94	3241.2	44	45	46	47	46	47
07/06/94	3712.1	43	44	44	45	45	45
07/21/94	3858.3	43	45	48	48	50	51
08/09/94	3859.7	43	44	45	46	45	46
09/07/94	4519.5	44	45	46	47		
09/30/94	5073.4	44	47	44	46	49	50
10/11/94	5328.8	48	50	41	44	48	50
11/03/94	5864.3	39	43	57	58	58	58
12/05/94	6546.8	57	58	57	58	58	59

TABLE 5.

VOLATILE ORGANIC COMPOUNDS  
 MAINTENANCE SHOP SVE SYSTEM  
 DOWELL SCHLUMBERGER INCORPORA  
 ARTESIA, NEW MEXICO

DATE	METER	HOUR	HNu READING (PPM)		
			EXHAUST	ZONE 1	ZONE 2
02/03/94	47.8		0	4	35
02/10/94	219.4		0	1	12
02/16/94	362.1		0	1	6
02/23/94	531.0		3	3	8
03/04/94	748.6		0	1	6
03/11/94	915.3		3	3	7
03/18/94	1086.1		0	0	2
03/28/94	1325.8		0	0	2
04/08/94	1583.0		0	0	3.5
05/18/94			0		
07/06/94	3100.1		0	0	0
07/21/94	3457.6		0	0	0
08/09/94	3899.9		0	0	1
09/06/94	4093.7		0	0	1
09/30/94	4647.1		0	0.5	1
10/11/94	4911.1		3	1.8	1
11/03/94	5445.6		22	4.5	6.3
12/05/94	6204.9		4	2	5

TABLE 6.

VOLATILE ORGANIC COMPOUNDS  
 WASH BAY SVE SYSTEM  
 DOWELL SCHLUMBERGER INCORPORATED  
 ARTESIA, NEW MEXICO

DATE	METER	HOUR	HNu READING (PPM)			
			EXHAUST	ZONE 1	ZONE 2	ZONE 3
02/03/94	45.3	2	84	110	180	
02/10/94	217.7	0	56	69	137	
02/16/94	359.7	0	23	37	133	
02/23/94	528.5	3	22	54	118	
03/04/94	746.2	3	42	46	91	
03/11/94	912.0	7	44	42	93	
03/18/94	1083.9	40	33	44	77	
03/28/94	1322.8	18	26	13	21	
04/08/94	1581.2	7	29	39	67	
05/18/94		0				
07/06/94	3712.1	1	24	66	135	
07/21/94	3858.3	0	110	48	71	
08/09/94	3859.7	1	31	67	126	
09/06/94	4519.5	0	29	40	79	
09/30/94	5073.4	44	33/51	69/133	95/161	
10/11/94	5328.8	7	43	78	118	
11/03/94	5864.3	8	151	434	745	
12/05/94	6546.8	4	30	152	240	

**TABLE 7.** SUMMARY OF LABORATORY ANALYSES OF SOIL VAPOR SAMPLES, DOWELL SCHLUMBERGER INCORPORATED, ARTESA, NEW MEXICO (CONT.)

TABLE 7.

**SUMMARY OF LABORATORY ANALYSES OF SOIL VAPOR SAMPLES,  
DOWELL SCHLUMBERGER INCORPORATED, ARTESIA, NEW MEXICO**

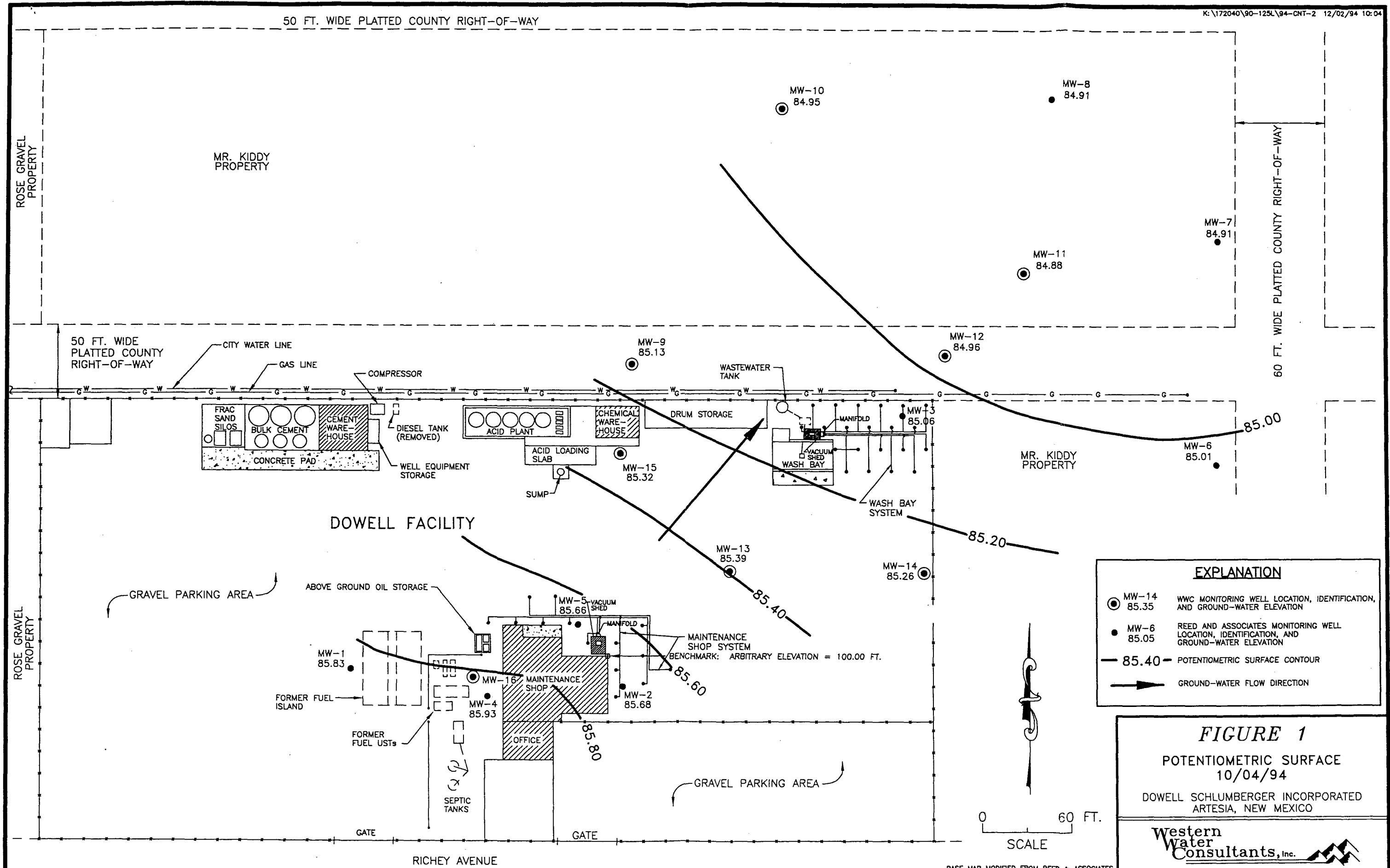
SVE ZONE	SAMPLE DATE	BENZENE ( $\mu\text{g/L}$ )	ETHYL- BENZENE ( $\mu\text{g/L}$ )	TOLUENE ( $\mu\text{g/L}$ )	XYLENES ( $\mu\text{g/L}$ )	1,1-DCA ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )	1,1-DCE ( $\mu\text{g/L}$ )	1,1,1-TCA ( $\mu\text{g/L}$ )	1,1,2-TCA ( $\mu\text{g/L}$ )	TCE ( $\mu\text{g/L}$ )	PCE ( $\mu\text{g/L}$ )	2-BUTANONE ( $\mu\text{g/L}$ )
WB-3	02/03/94	5.5	22	78	153	1.2	ND(0.5)	2.8	26	ND(0.5)	ND(0.5)	5.2	ND(2)
	02/10/94	ND(1)	15.6	64.6	46.9	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	31.3	ND(2)
	02/16/94	ND(1)	25.7	44.5	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)
	02/23/94	3.5	73.2	89.1	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	03/04/94	2.1	10.6	44.9	60.9	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	03/11/94	ND(0.5)	13.3	14.3	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	03/18/94	ND(0.5)	10.1	38.3	57.2	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	04/08/94	1.2	21.4	30.8	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	04/20/94	ND(0.5)	1.5	2.4	9.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	05/08/94	ND(0.5)	10.6	27.8	31.8	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	05/18/94	ND(0.5)	8.8	17.5	38.9	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	06/01/94	ND(1)	6.2	8.1	43.9	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
	07/08/94	ND(1)	4	7	3.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	08/10/94	ND(0.01)	11	22	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	08/07/94	ND(0.01)	1.349	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
				2.903	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
					ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
					ND(0.158)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)

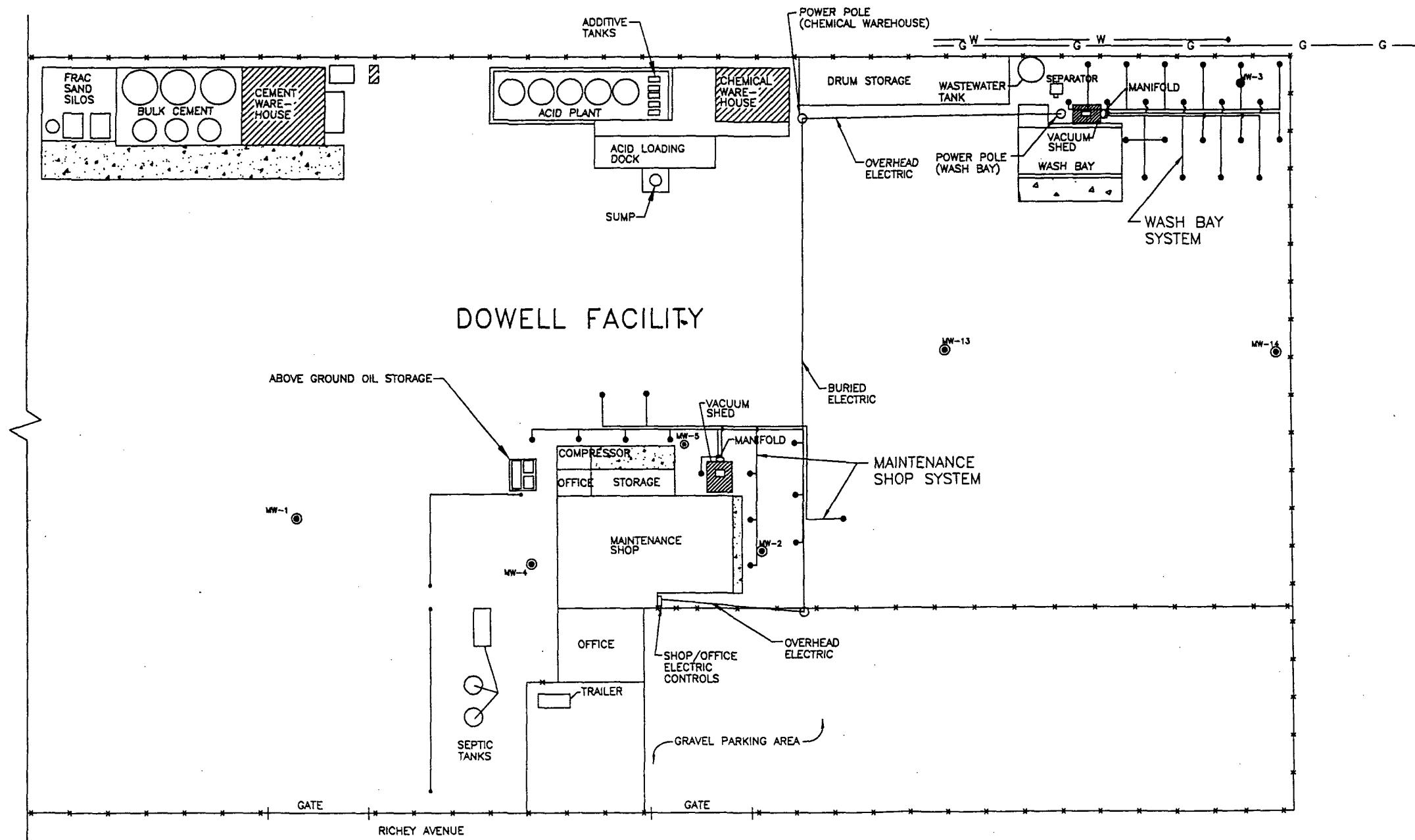
## NOTES:

ND(1) = chemical not detected at detection limit shown in parentheses  
 dup. = duplicate sample  
 \* = minor amounts of other chemicals also detected (see previous laboratory reports)  
 # = minor amounts of other chemicals also detected (see laboratory reports appended to this letter)  
 NA = not analyzed

## CHEMICAL ABBREVIATIONS:

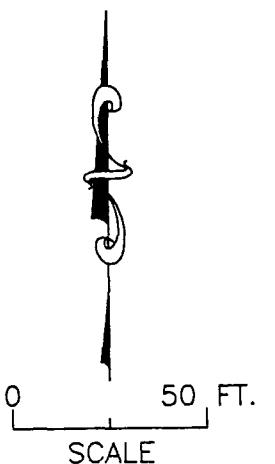
1,1-DCA = 1,1-dichloroethane  
 1,2-DCA = 1,2-dichloroethane  
 1,1-DCE = 1,1-dichloroethene  
 1,1,1-TCA = 1,1,1-trichloroethane  
 1,1,2-TCA = 1,1,2-trichloroethane  
 TCE = trichloroethene  
 PCE = tetrachloroethene





**EXPLANATION**

- MW-13** WWC MONITORING WELL LOCATION AND IDENTIFICATION
- SOIL VAPOR EXTRACTION (SVE) WELL
- AIR PIPING WITH DIRECTION OF FLOW



**FIGURE 2**

LOCATION OF SVE SYSTEMS

DOWELL SCHLUMBERGER INCORPORATED  
ARTESIA, NEW MEXICO

Western Water Consultants, Inc.

**APPENDIX A**

**LABORATORY DATA FOR**

**GROUND-WATER SAMPLES**

COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
 CENREF SAMPLE NUMBER: 7583  
 SAMPLE IDENTIFICATION: #90125.1 MW-1  
 DATE SAMPLED: 10/25/94  
 DATE/TIME ANALYZED: 11/5/94 @ 0313

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	BDL
1,1-Dichloroethane	75-34-3	5	BDL
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	27
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	BDL
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7583  
SAMPLE IDENTIFICATION: #90125.1 MW-1  
DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit  
SDL = Sample Detection Limit

COMMENTS: \_\_\_\_\_

COMPANY NAME: Western Water Consultants  
 CENREF PROJECT NUMBER: PR941776  
 CENREF SAMPLE NUMBER: 7584  
 SAMPLE IDENTIFICATION: #90125.4 MW - 4  
 DATE SAMPLED: 10/25/94  
 DATE/TIME ANALYZED: 11/7/94 @ 1459

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	2 J
1,1-Dichloroethene	75-35-4	5	BDL
1,1-Dichloroethane	75-34-3	5	BDL
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	140
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	5
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7584  
SAMPLE IDENTIFICATION: #90125.4 mw -4  
DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	(E)
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	4 J
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

B = Compound also detected in the blank.

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7584DL  
SAMPLE IDENTIFICATION: #90125.4 mw -4 dilution  
DATE SAMPLED: 10/25/94  
DATE/TIME ANALYZED: 11/8/94 @ 2130

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	50	BDL
Bromomethane	74-83-9	50	BDL
Chloroethane	75-00-3	50	BDL
Methylene Chloride	75-09-2	25	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	25	BDL
1,1-Dichloroethane	75-34-3	25	BDL
Total 1,2-Dichloroethene	540-59-0	25	BDL
Chloroform	67-66-3	25	BDL
1,2-Dichloroethane	107-06-2	25	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	25	BDL
Carbon Tetrachloride	56-23-5	25	BDL
Vinyl Acetate	108-05-4	50	BDL
Bromodichloromethane	75-27-4	25	BDL
1,2-Dichloropropane	78-87-5	25	BDL
2-Chloroethyl Vinyl Ether	110-75-8	50	BDL
Cis-1,3-Dichloropropene	10061-01-5	25	BDL
Trichloroethene	79-01-6	25	BDL
Dibromochloromethane	124-48-1	25	BDL
1,1,2-Trichloroethane	79-00-5	25	BDL
Benzene	71-43-2	25	150
Trans-1,3-Dichloropropene	10061-02-6	25	BDL
Bromoform	75-25-2	25	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	25	BDL
1,1,2,2-Tetrachloroethane	79-34-5	25	BDL
Toluene	108-88-3	25	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7584DL

SAMPLE IDENTIFICATION: #90125.4 mw-4 dilution

DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	25	BDL
Ethylbenzene	100-41-4	25	260
Styrene	100-42-5	25	BDL
Xylenes (Total)	1330-20-7	25	BDL
Vinyl Chloride	75-01-4	50	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: \_\_\_\_\_

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7585  
SAMPLE IDENTIFICATION: #90125.5 mw -5  
DATE SAMPLED: 10/25/94  
DATE/TIME ANALYZED: 11/7/94 @ 1540

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	2 J
1,1-Dichloroethane	75-34-3	5	20
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	(E)
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	43
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7585

SAMPLE IDENTIFICATION: #90125.5 mw-5

DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	59
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

B = Compound also detected in the blank.

COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941776

CENREF SAMPLE NUMBER:

7585DL

SAMPLE IDENTIFICATION:

#90125.5 mw - 5 dilution

DATE SAMPLED:

10/25/94

DATE/TIME ANALYZED:

11/8/94 @ 2211

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	50	BDL
Bromomethane	74-83-9	50	BDL
Chloroethane	75-00-3	50	BDL
Methylene Chloride	75-09-2	25	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	25	BDL
1,1-Dichloroethane	75-34-3	25	18 J
Total-1,2-Dichloroethene	540-59-0	25	BDL
Chloroform	67-66-3	25	BDL
1,2-Dichloroethane	107-06-2	25	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	25	BDL
Carbon Tetrachloride	56-23-5	25	BDL
Vinyl Acetate	108-05-4	50	BDL
Bromodichloromethane	75-27-4	25	BDL
1,2-Dichloropropane	78-87-5	25	BDL
2-Chloroethyl Vinyl Ether	110-75-8	50	BDL
Cis-1,3-Dichloropropene	10061-01-5	25	BDL
Trichloroethene	79-01-6	25	8 J
Dibromochloromethane	124-48-1	25	BDL
1,1,2-Trichloroethane	79-00-5	25	BDL
Benzene	71-43-2	25	240
Trans-1,3-Dichloropropene	10061-02-6	25	BDL
Bromoform	75-25-2	25	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	25	34
1,1,2,2-Tetrachloroethane	79-34-5	25	BDL
Toluene	108-88-3	25	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7585DL

SAMPLE IDENTIFICATION: #90125.5 mw-5dilution

DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	25	BDL
Ethylbenzene	100-41-4	25	51
Styrene	100-42-5	25	BDL
Xylenes (Total)	1330-20-7	25	BDL
Vinyl Chloride	75-01-4	50	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

COMPANY NAME: Western Water Consultants  
 CENREF PROJECT NUMBER: PR941776  
 CENREF SAMPLE NUMBER: 7586  
 SAMPLE IDENTIFICATION: #90125.15 mw-15  
 DATE SAMPLED: 10/25/94  
 DATE/TIME ANALYZED: 11/7/94 @ 1621

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	6
1,1-Dichloroethane	75-34-3	5	29
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	4 J
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	1 J
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	6
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7586  
SAMPLE IDENTIFICATION: #90125.15 mw-15  
DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941776

CENREF SAMPLE NUMBER:

7587

SAMPLE IDENTIFICATION:

#90125.13 MW-13

DATE SAMPLED:

10/25/94

DATE/TIME ANALYZED:

11/7/94 @ 1701

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	4 J
1,1-Dichloroethane	75-34-3	5	13
Total 1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	4 J
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	11
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	40
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7587  
SAMPLE IDENTIFICATION: #90125.13 mw-13  
DATE SAMPLED: 10/25/94

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941776

CENREF SAMPLE NUMBER:

7588

SAMPLE IDENTIFICATION:

#90125.2 mw-2

DATE SAMPLED:

10/25/94

DATE/TIME ANALYZED:

11/7/94 @ 1743

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	BDL
1,1-Dichloroethane	75-34-3	5	30
Total 1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	1 J
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	45
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	37
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7588

SAMPLE IDENTIFICATION: #90125.2 mw-2

DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	8
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7589  
SAMPLE IDENTIFICATION: #90125.14 mw-14  
DATE SAMPLED: 10/25/94  
DATE/TIME ANALYZED: 11/7/94 @ 1823

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	94
1,1-Dichloroethane	75-34-3	5	79
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	1 J
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	10
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	(E)
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7589

SAMPLE IDENTIFICATION: #90125.14 mW - 14

DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

B = Compound also detected in the blank.

COMPANY NAME: Western Water Consultants  
 CENREF PROJECT NUMBER: PR941776  
 CENREF SAMPLE NUMBER: 7589DL  
 SAMPLE IDENTIFICATION: #90125.14 mw-14 dilution  
 DATE SAMPLED: 10/25/94  
 DATE/TIME ANALYZED: 11/8/94 @ 2252

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	20	BDL
Bromomethane	74-83-9	20	BDL
Chloroethane	75-00-3	20	BDL
Methylene Chloride	75-09-2	10	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	10	86
1,1-Dichloroethane	75-34-3	10	78
Total-1,2-Dichloroethene	540-59-0	10	BDL
Chloroform	67-66-3	10	BDL
1,2-Dichloroethane	107-06-2	10	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	10	BDL
Carbon Tetrachloride	56-23-5	10	BDL
Vinyl Acetate	108-05-4	20	BDL
Bromodichloromethane	75-27-4	10	BDL
1,2-Dichloropropane	78-87-5	10	BDL
2-Chloroethyl Vinyl Ether	110-75-8	20	BDL
Cis-1,3-Dichloropropene	10061-01-5	10	BDL
Trichloroethene	79-01-6	10	BDL
Dibromochloromethane	124-48-1	10	BDL
1,1,2-Trichloroethane	79-00-5	10	BDL
Benzene	71-43-2	10	9
Trans-1,3-Dichloropropene	10061-02-6	10	BDL
Bromoform	75-25-2	10	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	10	230
1,1,2,2-Tetrachloroethane	79-34-5	10	BDL
Toluene	108-88-3	10	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants  
CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7589DL  
SAMPLE IDENTIFICATION: #90125.14 mw-14 dilution  
DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	10	BDL
Ethylbenzene	100-41-4	10	BDL
Styrene	100-42-5	10	BDL
Xylenes (Total)	1330-20-7	10	BDL
Vinyl Chloride	75-01-4	20	BDL

BDL = Below Sample Detection Limit  
SDL = Sample Detection Limit

COMMENTS: \_\_\_\_\_

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7590  
SAMPLE IDENTIFICATION: #90125.3 MW -3  
DATE SAMPLED: 10/25/94  
DATE/TIME ANALYZED: 11/7/94 @ 1920

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	100	BDL
Bromomethane	74-83-9	100	BDL
Chloroethane	75-00-3	100	BDL
Methylene Chloride	75-09-2	50	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	50	64
1,1-Dichloroethane	75-34-3	50	200
Total-1,2-Dichloroethene	540-59-0	50	BDL
Chloroform	67-66-3	50	BDL
1,2-Dichloroethane	107-06-2	50	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	50	BDL
Carbon Tetrachloride	56-23-5	50	BDL
Vinyl Acetate	108-05-4	100	BDL
Bromodichloromethane	75-27-4	50	BDL
1,2-Dichloropropane	78-87-5	50	BDL
2-Chloroethyl Vinyl Ether	110-75-8	100	BDL
Cis-1,3-Dichloropropene	10061-01-5	50	BDL
Trichloroethene	79-01-6	50	130
Dibromochloromethane	124-48-1	50	BDL
1,1,2-Trichloroethane	79-00-5	50	BDL
Benzene	71-43-2	50	130
Trans-1,3-Dichloropropene	10061-02-6	50	BDL
Bromoform	75-25-2	50	BDL
4-Methyl-2-Pentanone	108-10-1	100	BDL
2-Hexanone	591-78-6	100	BDL
Tetrachloroethene	127-18-4	50	BDL
1,1,2,2-Tetrachloroethane	79-34-5	50	BDL
Toluene	108-88-3	50	250

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7590  
SAMPLE IDENTIFICATION: #90125.3 m w - 3  
DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	50	BDL
Ethylbenzene	100-41-4	50	960
Styrene	100-42-5	50	BDL
Xylenes (Total)	1330-20-7	50	(E)
Vinyl Chloride	75-01-4	100	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: E = Exceeds the linear range of the instrument.

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7590DL  
SAMPLE IDENTIFICATION: #90125.3 m w-3 dilution  
DATE SAMPLED: 10/25/94  
DATE/TIME ANALYZED: 11/7/94 @ 1920

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	200	BDL
Bromomethane	74-83-9	200	BDL
Chloroethane	75-00-3	200	BDL
Methylene Chloride	75-09-2	100	BDL
Acetone	67-64-1	200	BDL
Carbon Disulfide	75-15-0	200	BDL
1,1-Dichloroethene	75-35-4	100	54 J
1,1-Dichloroethane	75-34-3	100	180
Total-1,2-Dichloroethene	540-59-0	100	BDL
Chloroform	67-66-3	100	BDL
1,2-Dichloroethane	107-06-2	100	BDL
2-Butanone	78-93-3	200	BDL
1,1,1-Trichloroethane	71-55-6	100	BDL
Carbon Tetrachloride	56-23-5	100	BDL
Vinyl Acetate	108-05-4	200	BDL
Bromodichloromethane	75-27-4	100	BDL
1,2-Dichloropropane	78-87-5	100	BDL
2-Chloroethyl Vinyl Ether	110-75-8	200	BDL
Cis-1,3-Dichloropropene	10061-01-5	100	BDL
Trichloroethene	79-01-6	100	100
Dibromochloromethane	124-48-1	100	BDL
1,1,2-Trichloroethane	79-00-5	100	BDL
Benzene	71-43-2	100	110
Trans-1,3-Dichloropropene	10061-02-6	100	BDL
Bromoform	75-25-2	100	BDL
4-Methyl-2-Pentanone	108-10-1	200	BDL
2-Hexanone	591-78-6	200	BDL
Tetrachloroethene	127-18-4	100	21 J
1,1,2,2-Tetrachloroethane	79-34-5	100	BDL
Toluene	108-88-3	100	210

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7590DL

SAMPLE IDENTIFICATION: #90125.3 mw-3 dilution

DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	100	BDL
Ethylbenzene	100-41-4	100	810
Styrene	100-42-5	100	BDL
Xylenes (Total)	1330-20-7	100	4200
Vinyl Chloride	75-01-4	200	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941776

CENREF SAMPLE NUMBER:

7591

SAMPLE IDENTIFICATION:

#90125.30 duplicate MW-3

DATE SAMPLED:

10/25/94

DATE/TIME ANALYZED:

11/7/94 @ 2002

## METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	100	BDL
Bromomethane	74-83-9	100	BDL
Chloroethane	75-00-3	100	BDL
Methylene Chloride	75-09-2	50	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	50	51
1,1-Dichloroethane	75-34-3	50	180
Total-1,2-Dichloroethene	540-59-0	50	BDL
Chloroform	67-66-3	50	BDL
1,2-Dichloroethane	107-06-2	50	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	50	BDL
Carbon Tetrachloride	56-23-5	50	BDL
Vinyl Acetate	108-05-4	100	BDL
Bromodichloromethane	75-27-4	50	BDL
1,2-Dichloropropane	78-87-5	50	BDL
0-Chloroethyl Vinyl Ether	110-75-8	100	BDL
Cis-1,3-Dichloropropene	10061-01-5	50	BDL
Trichloroethene	79-01-6	50	100
Dibromochloromethane	124-48-1	50	BDL
1,1,2-Trichloroethane	79-00-5	50	BDL
Benzene	71-43-2	50	110
Trans-1,3-Dichloropropene	10061-02-6	50	BDL
Bromoform	75-25-2	50	BDL
4-Methyl-2-Pentanone	108-10-1	100	BDL
2-Hexanone	591-78-6	100	BDL
Tetrachloroethene	127-18-4	50	24 J
1,1,2,2-Tetrachloroethane	79-34-5	50	BDL
Toluene	108-88-3	50	300

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7591

SAMPLE IDENTIFICATION: #90125.30 Duplicate UW-3

DATE SAMPLED: 10/25/94

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	50	BDL
Ethylbenzene	100-41-4	50	830
Styrene	100-42-5	50	BDL
Xylenes (Total)	1330-20-7	50	(E)
Vinyl Chloride	75-01-4	100	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

B = Compound also detected in the blank.

COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941776

CENREF SAMPLE NUMBER:

7591DL

SAMPLE IDENTIFICATION:

#90125.30 duplicate MW-3 dilution

DATE SAMPLED:

10/25/94

DATE/TIME ANALYZED:

11/8/94 @ 2031

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	200	BDL
Bromomethane	74-83-9	200	BDL
Chloroethane	75-00-3	200	BDL
Methylene Chloride	75-09-2	100	BDL
Acetone	67-64-1	200	BDL
Carbon Disulfide	75-15-0	200	BDL
1,1-Dichloroethene	75-35-4	100	52 J
1,1-Dichloroethane	75-34-3	100	180
Total-1,2-Dichloroethene	540-59-0	100	BDL
Chloroform	67-66-3	100	BDL
1,2-Dichloroethane	107-06-2	100	BDL
2-Butanone	78-93-3	200	BDL
1,1,1-Trichloroethane	71-55-6	100	BDL
Carbon Tetrachloride	56-23-5	100	BDL
Vinyl Acetate	108-05-4	200	BDL
Bromodichloromethane	75-27-4	100	BDL
1,2-Dichloropropane	78-87-5	100	BDL
2-Chloroethyl Vinyl Ether	110-75-8	200	BDL
Cis-1,3-Dichloropropene	10061-01-5	100	BDL
Trichloroethene	79-01-6	100	100
Dibromochloromethane	124-48-1	100	BDL
1,1,2-Trichloroethane	79-00-5	100	BDL
Benzene	71-43-2	100	110
Trans-1,3-Dichloropropene	10061-02-6	100	BDL
Bromoform	75-25-2	100	BDL
4-Methyl-2-Pentanone	108-10-1	200	BDL
2-Hexanone	591-78-6	200	BDL
Tetrachloroethene	127-18-4	100	22 J
1,1,2,2-Tetrachloroethane	79-34-5	100	BDL
Toluene	108-88-3	100	250

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7591DL

SAMPLE IDENTIFICATION: #90125.30 duplicate MW-3 dilution

DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	100	BDL
Ethylbenzene	100-41-4	100	860
Styrene	100-42-5	100	BDL
Xylenes (Total)	1330-20-7	100	4700
Vinyl Chloride	75-01-4	200	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7592  
SAMPLE IDENTIFICATION: #90125.10 MW-16  
DATE SAMPLED: 10/25/94  
DATE/TIME ANALYZED: 11/7/94 @ 2043

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	51
1,1-Dichloroethane	75-34-3	5	BDL
Total 1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	BDL
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7592

SAMPLE IDENTIFICATION: #90125.10 mw-10

DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: \_\_\_\_\_

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7593  
SAMPLE IDENTIFICATION: #90125.9 mw -9  
DATE SAMPLED: 10/25/94  
DATE/TIME ANALYZED: 11/7/94 @ 2124

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	BDL
1,1-Dichloroethane	75-34-3	5	14
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	BDL
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7593  
SAMPLE IDENTIFICATION: #90125.9 m w - 9  
DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: \_\_\_\_\_

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7594  
SAMPLE IDENTIFICATION: #90125.6 mw -6  
DATE SAMPLED: 10/25/94  
DATE/TIME ANALYZED: 11/7/94 @ 2204

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	79
1,1-Dichloroethane	75-34-3	5	12
Total 1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	59
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7594  
SAMPLE IDENTIFICATION: #90125.6 m w - 6  
DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit  
SDL = Sample Detection Limit

COMMENTS: \_\_\_\_\_

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7595  
SAMPLE IDENTIFICATION: #90125.7 mw -7  
DATE SAMPLED: 10/25/94  
DATE/TIME ANALYZED: 11/7/94 @ 2245

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	(E)
1,1-Dichloroethane	75-34-3	5	33
Total 1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	50
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	7
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	(E)
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7595  
SAMPLE IDENTIFICATION: #90125.7 mw -7  
DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: E = Exceeds the linear range of the instrument.

COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941776

CENREF SAMPLE NUMBER:

7595DL

SAMPLE IDENTIFICATION:

#90125.7 mw-7 dilution

DATE SAMPLED:

10/25/94

DATE/TIME ANALYZED:

11/9/94 @ 0014

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	50	BDL
Bromomethane	74-83-9	50	BDL
Chloroethane	75-00-3	50	BDL
Methylene Chloride	75-09-2	25	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	25	230
1,1-Dichloroethane	75-34-3	25	31
Total-1,2-Dichloroethene	540-59-0	25	BDL
Chloroform	67-66-3	25	BDL
1,2-Dichloroethane	107-06-2	25	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	25	BDL
Carbon Tetrachloride	56-23-5	25	BDL
Vinyl Acetate	108-05-4	50	BDL
Bromodichloromethane	75-27-4	25	BDL
1,2-Dichloropropane	78-87-5	25	BDL
2-Chloroethyl Vinyl Ether	110-75-8	50	BDL
Cis-1,3-Dichloropropene	10061-01-5	25	BDL
Trichloroethene	79-01-6	25	BDL
Dibromochloromethane	124-48-1	25	BDL
1,1,2-Trichloroethane	79-00-5	25	BDL
Benzene	71-43-2	25	7 J
Trans-1,3-Dichloropropene	10061-02-6	25	BDL
Bromoform	75-25-2	25	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	25	240
1,1,2,2-Tetrachloroethane	79-34-5	25	BDL
Toluene	108-88-3	25	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7595DL

SAMPLE IDENTIFICATION: #90125.7 mw - 7 dilution

DATE SAMPLED: 10/25/94

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	25	BDL
Ethylbenzene	100-41-4	25	BDL
Styrene	100-42-5	25	BDL
Xylenes (Total)	1330-20-7	25	BDL
Vinyl Chloride	75-01-4	50	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941776

CENREF SAMPLE NUMBER:

7596

SAMPLE IDENTIFICATION:

#90125.8 MW - 8

DATE SAMPLED:

10/25/94

DATE/TIME ANALYZED:

11/7/94 @ 2326

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	82
1,1-Dichloroethane	75-34-3	5	8
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	10
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	19
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7596  
SAMPLE IDENTIFICATION: #90125.8 MW-8  
DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit  
SDL = Sample Detection Limit

COMMENTS: \_\_\_\_\_

COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941776

CENREF SAMPLE NUMBER:

7597

SAMPLE IDENTIFICATION:

#90125.12 MW-12

DATE SAMPLED:

10/25/94

DATE/TIME ANALYZED:

11/9/94 @ 0055

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	50	BDL
Bromomethane	74-83-9	50	BDL
Chloroethane	75-00-3	50	BDL
Methylene Chloride	75-09-2	25	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	25	85
1,1-Dichloroethane	75-34-3	25	160
Total-1,2-Dichloroethene	540-59-0	25	BDL
Chloroform	67-66-3	25	BDL
1,2-Dichloroethane	107-06-2	25	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	25	BDL
Carbon Tetrachloride	56-23-5	25	BDL
Vinyl Acetate	108-05-4	50	BDL
Bromodichloromethane	75-27-4	25	BDL
1,2-Dichloropropane	78-87-5	25	BDL
2-Chloroethyl Vinyl Ether	110-75-8	50	BDL
Cis-1,3-Dichloropropene	10061-01-5	25	BDL
Trichloroethene	79-01-6	25	120
Dibromochloromethane	124-48-1	25	BDL
1,1,2-Trichloroethane	79-00-5	25	BDL
Benzene	71-43-2	25	96
Trans-1,3-Dichloropropene	10061-02-6	25	BDL
Bromoform	75-25-2	25	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	25	15 J
1,1,2,2-Tetrachloroethane	79-34-5	25	BDL
Toluene	108-88-3	25	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7597  
SAMPLE IDENTIFICATION: #90125.12 MW -12  
DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	25	BDL
Ethylbenzene	100-41-4	25	660
Styrene	100-42-5	25	BDL
Xylenes (Total)	1330-20-7	25	100
Vinyl Chloride	75-01-4	50	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941776

CENREF SAMPLE NUMBER:

7598

SAMPLE IDENTIFICATION:

#90125.11 MW-11

DATE SAMPLED:

10/25/94

DATE/TIME ANALYZED:

11/8/94 @ 0048

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	(E)
1,1-Dichloroethane	75-34-3	5	67
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	1 J
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	110
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	9
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	(E)
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7598

SAMPLE IDENTIFICATION: #90125.11 mw-II

DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

B = Compound also detected in the blank.

COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941776

CENREF SAMPLE NUMBER:

7598DL

SAMPLE IDENTIFICATION:

#90125.11 mw-11 dilution

DATE SAMPLED:

10/25/94

DATE/TIME ANALYZED:

11/9/94 @ 0136

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	50	BDL
Bromomethane	74-83-9	50	BDL
Chloroethane	75-00-3	50	BDL
Methylene Chloride	75-09-2	25	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	25	220
1,1-Dichloroethane	75-34-3	25	52
Total 1,2-Dichloroethene	540-59-0	25	BDL
Chloroform	67-66-3	25	BDL
1,2-Dichloroethane	107-06-2	25	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	25	BDL
Carbon Tetrachloride	56-23-5	25	BDL
Vinyl Acetate	108-05-4	50	BDL
Bromodichloromethane	75-27-4	25	BDL
1,2-Dichloropropane	78-87-5	25	BDL
2-Chloroethyl Vinyl Ether	110-75-8	50	BDL
Cis-1,3-Dichloropropene	10061-01-5	25	BDL
Trichloroethene	79-01-6	25	84
Dibromochloromethane	124-48-1	25	BDL
1,1,2-Trichloroethane	79-00-5	25	BDL
Benzene	71-43-2	25	BDL
Trans-1,3-Dichloropropene	10061-02-6	25	BDL
Bromoform	75-25-2	25	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	25	300
1,1,2,2-Tetrachloroethane	79-34-5	25	BDL
Toluene	108-88-3	25	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7598DL

SAMPLE IDENTIFICATION: #90125.12-11 mw-11 dilution

DATE SAMPLED: 10/25/94

**METHOD EPA 8240**

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	25	BDL
Ethylbenzene	100-41-4	25	BDL
Styrene	100-42-5	25	BDL
Xylenes (Total)	1330-20-7	25	BDL
Vinyl Chloride	75-01-4	50	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: \_\_\_\_\_

COMPANY NAME: Western Water Consultants  
 CENREF PROJECT NUMBER: PR941776  
 CENREF SAMPLE NUMBER: 7599  
 SAMPLE IDENTIFICATION: #90125.70 duplicate MW-7 1  
 DATE SAMPLED: 10/25/94  
 DATE/TIME ANALYZED: 11/8/94 @ 1238

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	50	BDL
Bromomethane	74-83-9	50	BDL
Chloroethane	75-00-3	50	BDL
Methylene Chloride	75-09-2	25	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	25	200
1,1-Dichloroethane	75-34-3	25	26
Total 1,2-Dichloroethene	540-59-0	25	BDL
Chloroform	67-66-3	25	BDL
1,2-Dichloroethane	107-06-2	25	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	25	BDL
Carbon Tetrachloride	56-23-5	25	BDL
Vinyl Acetate	108-05-4	50	BDL
Bromodichloromethane	75-27-4	25	BDL
1,2-Dichloropropane	78-87-5	25	BDL
2-Chloroethyl Vinyl Ether	110-75-8	50	BDL
Cis-1,3-Dichloropropene	10061-01-5	25	BDL
Trichloroethene	79-01-6	25	45
Dibromochloromethane	124-48-1	25	BDL
1,1,2-Trichloroethane	79-00-5	25	BDL
Benzene	71-43-2	25	6 J
Trans-1,3-Dichloropropene	10061-02-6	25	BDL
Bromoform	75-25-2	25	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	25	230
1,1,2,2-Tetrachloroethane	79-34-5	25	BDL
Toluene	108-88-3	25	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7599

SAMPLE IDENTIFICATION: #90125.70 duplicate MW-7

DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	25	BDL
Ethylbenzene	100-41-4	25	BDL
Styrene	100-42-5	25	BDL
Xylenes (Total)	1330-20-7	25	BDL
Vinyl Chloride	75-01-4	50	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776  
CENREF SAMPLE NUMBER: 7600  
SAMPLE IDENTIFICATION: #90125.0110 Trip blank  
DATE SAMPLED: 10/25/94  
DATE/TIME ANALYZED: 11/8/94 @ 1316

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	BDL
1,1-Dichloroethane	75-34-3	5	BDL
Total 1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	1 J
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl Vinyl Ether	110-75-8	10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	2 J
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	BDL
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	3 J

Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941776

CENREF SAMPLE NUMBER: 7600

SAMPLE IDENTIFICATION: #90125.0110 Trip blank

DATE SAMPLED: 10/25/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	1 J
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

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# WESTERN WATER CONSULTANTS, INC.

Engineering • Hydrology • Hydrogeology • Waste Management • Construction Administration

611 SKYLINE ROAD, P.O. BOX 4128 • LARAMIE, WYOMING 82071 • (307) 742-0031 • FAX (307) 721-2913

December 12, 1994

Mr. John A. Miller  
Remediation Manager  
Dowell Schlumberger Incorporated  
300 Schlumberger Drive  
Sugar Land, TX 77478

RE: Draft Report to Mr. Tony Moreland, New Mexico Environment Department: October 1994 Ground-water Monitoring Event and SVE Progress Report, Artesia, New Mexico.  
WWC JN 90-125L.3&4

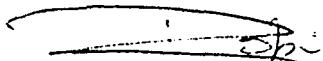
Dear John:

Enclosed please find the draft letter report documenting monitoring for the August 1994 through October 1994 quarter at the Dowell Schlumberger Incorporated facility in Artesia, New Mexico. Included in this report are quarterly ground-water monitoring and operational data from the SVE system. Ground-water monitoring was conducted on October 24 and 25, 1994. Documentation of the installation and soil sampling of additional soil vapor extraction (SVE) wells which occurred on October 10 - 12, 1994 was included in the plans and specifications for the northern expansion of the wash bay SVE system prepared by Rick Deuell and sent to you on December 8, 1994.

A draft letter to Mr. Kiddy presenting the October 1994 analytical results from ground-water samples collected from wells on his property was sent to you under separate cover on December 1, 1994.

If you have questions or comments, please contact Susan Fields, Rick Deuell, or me at (307) 742-0031.

Sincerely,



Robin Daley  
Geologist

RD/jb  
Enclosures  
cc: Brent Schindler w/enclosures  
File: 90-125L-B

#### OTHER LOCATIONS

1949 SUGARLAND DRIVE, SUITE 134  
SHERIDAN, WYOMING 82801  
(307) 672-0761  
FAX (307) 674-4265

701 ANTLER DRIVE, SUITE 233  
CASPER, WY 82601  
(307) 473-2707  
FAX (307) 237-0828

**APPENDIX B**

**LABORATORY DATA FOR**

**SVE EMISSIONS**



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS  
ATTN: SCOTT GUSTIN  
PO BOX 4128  
LARAMIE, WY 82071

Receiving Date: 09/09/94

Reporting Date: 09/14/94

Project Number: H1787

Project Location: DOWELL - ARTESIA

Project Name: 90-125

Sample ID: MS-2

Lab Number: H1787-1

Analysis Date: 09/13/94

Sampling Date: NONE GIVEN

Sample Type: AIR

Sample Condition: INTACT

Sample Received By: RKT

Analyzed By: SL

VOLATILE ORGANIC

COMPOUNDS IN AIR - (ppm)

	Detection Limit	Sample Result H1787-1	Method Blank	QC	True Value %IA	QC
--	-----------------	-----------------------	--------------	----	----------------	----

1 Acetone	0.001	<0.001	<0.001	89.0	89	100.0
2 1,1-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
3 Methylene Chloride	0.001	<0.001	<0.001	89.0	89	100.0
4 trans-1,2-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
5 1,1-Dichloroethene	0.001	<0.001	<0.001	85.0	85	100.0
6 2-Butanone	0.001	<0.001	<0.001	107.0	107	100.0
7 cis-1,2-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
8 Chloroform	0.001	<0.001	<0.001	86.0	86	100.0
9 1,1,1-Trichloroethane	0.001	0.305	<0.001	88.0	88	100.0
10 1,2-Dichloroethane	0.001	<0.001	<0.001	85.0	85	100.0
11 Benzene	0.001	<0.001	<0.001	86.0	86	100.0
12 Carbon Tetrachloride	0.001	<0.001	<0.001	87.0	87	100.0
13 Trichloroethene	0.001	<0.001	<0.001	83.0	83	100.0
14 Bromodichloromethane	0.001	<0.001	<0.001	80.0	80	100.0
15 trans-1,3-Dichloropropene	0.001	<0.001	<0.001	86.0	86	100.0
16 cis-1,3-Dichloropropene	0.001	<0.001	<0.001	82.0	82	100.0
17 Toluene	0.001	<0.001	<0.001	85.0	85	100.0
18 1,2-Dichloropropane	0.001	<0.001	<0.001	82.0	82	100.0
19 1,1,2-Trichloroethane	0.001	<0.001	<0.001	82.0	82	100.0
20 Tetrachloroethane	0.001	<0.001	<0.001	87.0	87	100.0
21 Dibromochloromethane	0.001	<0.001	<0.001	86.0	86	100.0
22 Chlorobenzene	0.001	<0.001	<0.001	86.0	86	100.0
23 Ethyl Benzene	0.001	<0.001	<0.001	86.0	86	100.0
24 m,p-Xylene	0.001	<0.001	<0.001	86.0	86	100.0
25 Bromoform	0.001	<0.001	<0.001	82.0	82	100.0
26 Styrene	0.001	<0.001	<0.001	89.0	89	100.0



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ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS  
ATTN: SCOTT GUSTIN  
PO BOX 4128  
LARAMIE, WY 82071

Receiving Date: 09/09/94

Analysis Date: 09/13/94

Reporting Date: 09/14/94

Sampling Date: NONE GIVEN

Project Number: H1787

Sample Type: AIR

Project Location: DOWELL - ARTESIA

Sample Condition: INTACT

Project Name: 90-125

Sample Received By: RKT

Sample ID: MS-2

Analyzed By: SL

Lab Number: H1787-1

VOLATILE ORGANIC

COMPOUNDS IN AIR - (ppm)

	Detection Limit	Sample Result	Method	True Value
		H1787-1	Blank	%IA QC

27 o-Xylene	0.001	<0.001	<0.001	89.0	89	100.0
28 1,1,2,2-Tetrachloroethane	0.001	<0.001	<0.001	85.0	85	100.0

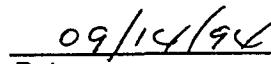
% Recovery

Relative Percent Difference

29 Dibromofluoromethane	66	3
30 Toluene-D8	96	6
31 4-Bromofluorobenzene	106	2

METHOD: EPA 846-8240

  
\_\_\_\_\_  
Gayle A. Potter, President

  
\_\_\_\_\_  
Date

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ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS  
ATTN: SCOTT GUSTIN  
PO BOX 4128  
LARAMIE, WY 82071

Receiving Date: 09/09/94  
Reporting Date: 09/14/94  
Project Number: H1787  
Project Location: DOWELL - ARTESIA  
Project Name: 90-125  
Sample ID: WB-2  
Lab Number: H1787-2

Analysis Date: 09/13/94  
Sampling Date: NONE GIVEN  
Sample Type: AIR  
Sample Condition: INTACT  
Sample Received By: RKT  
Analyzed By: SL

VOLATILE ORGANIC  
COMPOUNDS IN AIR - (ppm)

	Detection Limit	Sample Result H1787-2	Method Blank	QC	True Value %IA	QC
--	-----------------	-----------------------	--------------	----	----------------	----

1 Acetone	0.001	<0.001	<0.001	89.0	89	100.0
2 1,1-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
3 Methylene Chloride	0.001	<0.001	<0.001	89.0	89	100.0
4 trans-1,2-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
5 1,1-Dichloroethene	0.001	<0.001	<0.001	85.0	85	100.0
6 2-Butanone	0.001	1.280	<0.001	107.0	107	100.0
7 cis-1,2-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
8 Chloroform	0.001	<0.001	<0.001	86.0	86	100.0
9 1,1,1-Trichloroethane	0.001	<0.001	<0.001	88.0	88	100.0
10 1,2-Dichloroethane	0.001	<0.001	<0.001	85.0	85	100.0
11 Benzene	0.001	<0.001	<0.001	86.0	86	100.0
12 Carbon Tetrachloride	0.001	<0.001	<0.001	87.0	87	100.0
13 Trichloroethene	0.001	<0.001	<0.001	83.0	83	100.0
14 Bromodichloromethane	0.001	<0.001	<0.001	80.0	80	100.0
15 trans-1,3-Dichloropropene	0.001	<0.001	<0.001	86.0	86	100.0
16 cis-1,3-Dichloropropene	0.001	<0.001	<0.001	82.0	82	100.0
17 Toluene	0.001	0.441	<0.001	85.0	85	100.0
18 1,2-Dichloropropane	0.001	<0.001	<0.001	82.0	82	100.0
19 1,1,2-Trichloroethane	0.001	<0.001	<0.001	82.0	82	100.0
20 Tetrachloroethane	0.001	<0.001	<0.001	87.0	87	100.0
21 Dibromochloromethane	0.001	<0.001	<0.001	86.0	86	100.0
22 Chlorobenzene	0.001	<0.001	<0.001	86.0	86	100.0
23 Ethyl Benzene	0.001	0.449	<0.001	86.0	86	100.0
24 m,p-Xylene	0.001	1.227	<0.001	86.0	86	100.0
25 Bromoform	0.001	<0.001	<0.001	82.0	82	100.0
26 Styrene	0.001	<0.001	<0.001	89.0	89	100.0



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ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS  
ATTN: SCOTT GUSTIN  
PO BOX 4128  
LARAMIE, WY 82071

Receiving Date: 09/09/94

Analysis Date: 09/13/94

Reporting Date: 09/14/94

Sampling Date: NONE GIVEN

Project Number: H1787

Sample Type: AIR

Project Location: DOWELL - ARTESIA

Sample Condition: INTACT

Project Name: 90-125

Sample Received By: RKT

Sample ID: WB-2

Analyzed By: SL

Lab Number: H1787-2

VOLATILE ORGANIC

COMPOUNDS IN AIR - (ppm)

	Detection Limit	Sample Result	Method	True Value
		H1787-2	Blank	%IA QC

27 o-Xylene	0.001	2.890	<0.001	89.0	89	100.0
28 1,1,2,2-Tetrachloroethane	0.001	<0.001	<0.001	85.0	85	100.0

% Recovery

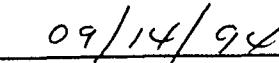
Relative Percent Difference

29 Dibromofluoromethane	MI	3
30 Toluene-D8	63	6
31 4-Bromofluorobenzene	91	2

METHOD: EPA 846-8240

MI - Matrix Interference

  
\_\_\_\_\_  
Gayle A. Potter, President

  
\_\_\_\_\_  
Date

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ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS  
ATTN: SCOTT GUSTIN  
PO BOX 4128  
LARAMIE, WY 82071

Receiving Date: 09/09/94

Reporting Date: 09/14/94

Project Number: H1787

Project Location: DOWELL - ARTESIA

Project Name: 90-125

Sample ID: WB-3

Lab Number: H1787-3

Analysis Date: 09/13/94

Sampling Date: NONE GIVEN

Sample Type: AIR

Sample Condition: INTACT

Sample Received By: RKT

Analyzed By: SL

VOLATILE ORGANIC

COMPOUNDS IN AIR - (ppm)

	Detection Limit	Sample Result H1787-3	Method Blank	Method QC	True Value %IA	True Value QC
--	-----------------	-----------------------	--------------	-----------	----------------	---------------

1 Acetone	0.001	<0.001	<0.001	89.0	89	100.0
2 1,1-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
3 Methylene Chloride	0.001	<0.001	<0.001	89.0	89	100.0
4 trans-1,2-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
5 1,1,1-Dichloroethene	0.001	<0.001	<0.001	85.0	85	100.0
6 2-Butanone	0.001	<0.001	<0.001	107.0	107	100.0
7 cis-1,2-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
8 Chloroform	0.001	<0.001	<0.001	86.0	86	100.0
9 1,1,1-Trichloroethane	0.001	0.156	<0.001	88.0	88	100.0
10 1,2-Dichloroethane	0.001	<0.001	<0.001	85.0	85	100.0
11 Benzene	0.001	<0.001	<0.001	86.0	86	100.0
12 Carbon Tetrachloride	0.001	<0.001	<0.001	87.0	87	100.0
13 Trichloroethene	0.001	<0.001	<0.001	83.0	83	100.0
14 Bromodichloromethane	0.001	<0.001	<0.001	80.0	80	100.0
15 trans-1,3-Dichloropropene	0.001	<0.001	<0.001	86.0	86	100.0
16 cis-1,3-Dichloropropene	0.001	<0.001	<0.001	82.0	82	100.0
17 Toluene	0.001	2.903	<0.001	85.0	85	100.0
18 1,2-Dichloropropane	0.001	<0.001	<0.001	82.0	82	100.0
19 1,1,2-Trichloroethane	0.001	<0.001	<0.001	82.0	82	100.0
20 Tetrachloroethane	0.001	<0.001	<0.001	87.0	87	100.0
21 Dibromochloromethane	0.001	<0.001	<0.001	86.0	86	100.0
22 Chlorobenzene	0.001	<0.001	<0.001	86.0	86	100.0
23 Ethyl Benzene	0.001	1.349	<0.001	86.0	86	100.0
24 m,p-Xylene	0.001	2.898	<0.001	86.0	86	100.0
25 Bromoform	0.001	<0.001	<0.001	82.0	82	100.0
26 Styrene	0.001	<0.001	<0.001	89.0	89	100.0



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ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS  
ATTN: SCOTT GUSTIN  
PO BOX 4128  
LARAMIE, WY 82071

Receiving Date: 09/09/94

Reporting Date: 09/14/94

Project Number: H1787

Project Location: DOWELL - ARTESIA

Project Name: 90-125

Sample ID: WB-3

Lab Number: H1787-3

Analysis Date: 09/13/94

Sampling Date: NONE GIVEN

Sample Type: AIR

Sample Condition: INTACT

Sample Received By: RKT

Analyzed By: SL

VOLATILE ORGANIC

COMPOUNDS IN AIR - (ppm)

	Detection Limit	Sample Result	Method	True Value
		H1787-3	Blank	%IA QC

27 o-Xylene	0.001	7.422	<0.001	89.0	89	100.0
28 1,1,2,2-Tetrachloroethane	0.001	<0.001	<0.001	85.0	85	100.0

% Recovery

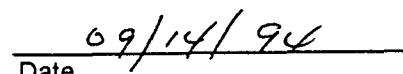
Relative Percent Difference

29 Dibromofluoromethane	MI	3
30 Toluene-D8	105	6
31 4-Bromofluorobenzene	111	2

METHOD: EPA 846-8240

MI - Matrix Interference

  
\_\_\_\_\_  
Gayle A. Potter, President

  
\_\_\_\_\_  
Date

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS  
ATTN: SCOTT GUSTIN  
PO BOX 4128  
LARAMIE, WY 82071

Receiving Date: 09/09/94

Reporting Date: 09/14/94

Project Number: H1787

Project Location: DOWELL - ARTESIA

Project Name: 90-125

Sample ID: WB-1

Lab Number: H1787-4

Analysis Date: 09/13/94

Sampling Date: NONE GIVEN

Sample Type: AIR

Sample Condition: INTACT

Sample Received By: RKT

Analyzed By: SL

VOLATILE ORGANIC

COMPOUNDS IN AIR - (ppm)

	Detection Limit	Sample Result H1787-4	Method Blank	QC	%IA	True Value QC
--	-----------------	-----------------------	--------------	----	-----	---------------

1 Acetone	0.001	<0.001	<0.001	89.0	89	100.0
2 1,1-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
3 Methylene Chloride	0.001	<0.001	<0.001	89.0	89	100.0
4 trans-1,2-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
5 1,1-Dichloroethene	0.001	<0.001	<0.001	85.0	85	100.0
6 2-Butanone	0.001	<0.001	<0.001	107.0	107	100.0
7 cis-1,2-Dichloroethene	0.001	<0.001	<0.001	87.0	87	100.0
8 Chloroform	0.001	<0.001	<0.001	86.0	86	100.0
9 1,1,1-Trichloroethane	0.001	<0.001	<0.001	88.0	88	100.0
10 1,2-Dichloroethane	0.001	<0.001	<0.001	85.0	85	100.0
11 Benzene	0.001	<0.001	<0.001	86.0	86	100.0
12 Carbon Tetrachloride	0.001	<0.001	<0.001	87.0	87	100.0
13 Trichloroethene	0.001	<0.001	<0.001	83.0	83	100.0
14 Bromodichloromethane	0.001	<0.001	<0.001	80.0	80	100.0
15 trans-1,3-Dichloropropene	0.001	<0.001	<0.001	86.0	86	100.0
16 cis-1,3-Dichloropropene	0.001	<0.001	<0.001	82.0	82	100.0
17 Toluene	0.001	0.093	<0.001	85.0	85	100.0
18 1,2-Dichloropropane	0.001	<0.001	<0.001	82.0	82	100.0
19 1,1,2-Trichloroethane	0.001	<0.001	<0.001	82.0	82	100.0
20 Tetrachloroethane	0.001	<0.001	<0.001	87.0	87	100.0
21 Dibromochloromethane	0.001	<0.001	<0.001	86.0	86	100.0
22 Chlorobenzene	0.001	<0.001	<0.001	86.0	86	100.0
23 Ethyl Benzene	0.001	0.293	<0.001	86.0	86	100.0
24 m,p-Xylene	0.001	0.190	<0.001	86.0	86	100.0
25 Bromoform	0.001	<0.001	<0.001	82.0	82	100.0
26 Styrene	0.001	<0.001	<0.001	89.0	89	100.0

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS  
ATTN: SCOTT GUSTIN  
PO BOX 4128  
LARAMIE, WY 82071

Receiving Date: 09/09/94

Reporting Date: 09/14/94

Project Number: H1787

Project Location: DOWELL - ARTESIA

Project Name: 90-125

Sample ID: WB-1

Lab Number: H1787-4

Analysis Date: 09/13/94

Sampling Date: NONE GIVEN

Sample Type: AIR

Sample Condition: INTACT

Sample Received By: RKT

Analyzed By: SL

VOLATILE ORGANIC

COMPOUNDS IN AIR - (ppm)

	Detection Limit	Sample Result H1787-4	Method Blank	QC	True Value %IA	QC
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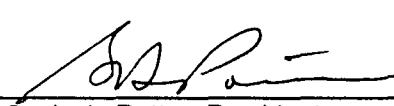
27 o-Xylene	0.001	0.419	<0.001	89.0	89	100.0
28 1,1,2,2-Tetrachloroethane	0.001	<0.001	<0.001	85.0	85	100.0

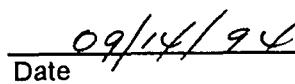
% Recovery

Relative Percent Difference

29 Dibromofluoromethane	63	3
30 Toluene-D8	86	6
31 4-Bromofluorobenzene	91	2

METHOD: EPA 846-8240

  
\_\_\_\_\_  
Gayle A. Potter, President

  
\_\_\_\_\_  
Date

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**CHAIN OF CUSTODY RECORD  
AND SAMPLING SHIPPING PAPERS**

PROJECT NO.	PROJECT NAME
90-125	DOWELL - ARTESIA
SAMPLERS : (signature)	
CONTAINERS	



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ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS  
ATTN: SCOTT GUSTIN  
PO BOX 4128

Receiving Date: 08/12/94

LARAMIE, WY 82071

Analysis Date: 08/15/94

Reporting Date: 08/17/94

Sampling Date: 08/10/94

Project Number: H1769

Sample Type: AIR

Project Location: ARTESIA, NM

Sample Condition: TEDLAR BAG & INTACT

Project Name: DOWELL - ARTESIA, NM

Sample Received By: RKT

Sample ID: WASH BAY ZONE 1

Analyzed By: BT

VOLATILE ORGANIC COMPOUNDS

	(ppm)	Detection Limit	Sample Result H1769-1	Method Blank	QC	True Value %IA	QC
1	Dichlorodifluoromethane	0.001	<0.001	<0.001	0.053	105	0.050
2	2-chloroethyl vinyl ether	0.001	<0.001	<0.001	0.053	107	0.050
3	Chloromethane	0.001	<0.001	<0.001	0.049	99	0.050
4	Vinyl chloride	0.001	<0.001	<0.001	0.048	96	0.050
5	Bromomethane	0.001	<0.001	<0.001	0.052	104	0.050
6	Chloroethane	0.001	<0.001	<0.001	0.050	101	0.050
7	Trichlorofluoromethane	0.001	<0.001	<0.001	0.048	97	0.050
8	1,1-Dichloroethene	0.001	<0.001	<0.001	0.050	99	0.050
9	Methylene chloride	0.001	<0.001	<0.001	0.049	99	0.050
10	trans-1,2-Dichloroethene	0.001	<0.001	<0.001	0.050	100	0.050
11	1,1-Dichloroethane	0.001	<0.001	<0.001	0.050	99	0.050
12	Chloroform	0.001	<0.001	<0.001	0.054	109	0.050
13	1,1,1-Trichloroethane	0.001	<0.001	<0.001	0.051	102	0.050
14	1,2-Dichloroethene	0.001	<0.001	<0.001	0.054	107	0.050
15	Carbon tetrachloride	0.001	<0.001	<0.001	0.049	99	0.050
16	1,2-Dichloropropane	0.001	<0.001	<0.001	0.054	107	0.050
17	Trichloroethene	0.001	<0.001	<0.001	0.053	106	0.050
18	Dibromomethane	0.001	<0.001	<0.001	0.051	103	0.050
19	Bromodichloromethane	0.001	<0.001	<0.001	0.054	108	0.050
20	trans-1,3-Dichloropropene	0.001	<0.001	<0.001	0.052	104	0.050
21	cis-1,3-Dichloropropene	0.001	<0.001	<0.001	0.054	107	0.050
22	1,1,2-Trichloroethane	0.001	<0.001	<0.001	0.046	92	0.050
23	Dibromochloromethane	0.001	<0.001	<0.001	0.052	105	0.050
24	Tetrachloroethene	0.001	<0.001	<0.001	0.051	102	0.050
25	Chlorobenzene	0.001	<0.001	<0.001	0.047	94	0.050
26	1,1,1,2-Tetrachloroethane	0.001	<0.001	<0.001	0.051	101	0.050
27	Bromoform	0.001	<0.001	<0.001	0.053	105	0.050
28	1,1,2,2-Tetrachloroethane	0.001	<0.001	<0.001	0.054	108	0.050

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ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS  
ATTN: SCOTT GUSTIN

PO BOX 4128  
LARAMIE, WY 82071

Receiving Date: 08/12/94

Reporting Date: 08/17/94

Project Number: H1769

Project Location: ARTESIA, NM

Project Name: DOWELL - ARTESIA, NM

Sample ID: WASH BAY ZONE 1

Analysis Date: 08/15/94

Sampling Date: 08/10/94

Sample Type: AIR

Sample Condition: TEDLAR BAG & INTACT

Sample Received By: RKT

Analyzed By: BT

VOLATILE ORGANIC COMPOUNDS

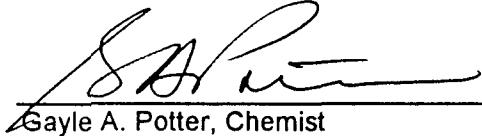
	(ppm)	Detection Limit	Sample Result H1769-1	Method Blank	Method QC	True Value %IA	True Value QC
29	1,2,3-Trichloropropane	0.001	<0.001	<0.001	0.048	96	0.050
30	Bromobenzene	0.001	<0.001	<0.001	0.050	99	0.050
31	2-Chlorotoluene	0.001	<0.001	<0.001	0.048	96	0.050
32	1,3-Dichlorobenzene	0.001	<0.001	<0.001	0.047	94	0.050
33	1,4 Dichlorobenzene	0.001	<0.001	<0.001	0.049	98	0.050
34	1,2-Dichlorobenzene	0.001	<0.001	<0.001	0.050	100	0.050
35	Acetone	0.001	<0.001	<0.001	0.046	92	0.050

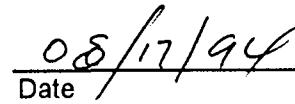
% Recovery

Relative Percent Difference

35	Dibromofluoromethane	100	0
36	Toluene-D8	98	1
37	4-Bromofluorobenzene	95	0

METHOD: EPA 846-8240

  
\_\_\_\_\_  
Gayle A. Potter, Chemist

  
\_\_\_\_\_  
Date

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ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS  
ATTN: SCOTT GUSTIN  
PO BOX 4128

Receiving Date: 08/12/94

LARAMIE, WY 82071

Analysis Date: 08/15/94

Reporting Date: 08/17/94

Sampling Date: 08/10/94

Project Number: H1769

Sample Type: AIR

Project Location: ARTESIA, NM

Sample Condition: TEDLAR BAG & INTACT

Project Name: DOWELL - ARTESIA, NM

Sample Received By: RKT

Sample ID: WASH BAY ZONE 2

Analyzed By: BT

VOLATILE ORGANIC COMPOUNDS

	(ppm)	Detection Limit	Sample Result H1769-2	Method Blank	QC	True Value %IA	QC
1	Dichlorodifluoromethane	0.001	<0.001	<0.001	0.053	105	0.050
2	2-chloroethyl vinyl ether	0.001	<0.001	<0.001	0.053	107	0.050
3	Chloromethane	0.001	<0.001	<0.001	0.049	99	0.050
4	Vinyl chloride	0.001	<0.001	<0.001	0.048	96	0.050
5	Bromomethane	0.001	<0.001	<0.001	0.052	104	0.050
6	Chloroethane	0.001	<0.001	<0.001	0.050	101	0.050
7	Trichlorofluoromethane	0.001	<0.001	<0.001	0.048	97	0.050
8	1,1-Dichloroethene	0.001	<0.001	<0.001	0.050	99	0.050
9	Methylene chloride	0.001	<0.001	<0.001	0.049	99	0.050
10	trans-1,2-Dichloroethene	0.001	<0.001	<0.001	0.050	100	0.050
11	1,1-Dichloroethane	0.001	<0.001	<0.001	0.050	99	0.050
12	Chloroform	0.001	<0.001	<0.001	0.054	109	0.050
13	1,1,1-Trichloroethane	0.001	<0.001	<0.001	0.051	102	0.050
14	1,2-Dichloroethene	0.001	<0.001	<0.001	0.054	107	0.050
15	Carbon tetrachloride	0.001	<0.001	<0.001	0.049	99	0.050
16	1,2-Dichloropropane	0.001	<0.001	<0.001	0.054	107	0.050
17	Trichloroethene	0.001	<0.001	<0.001	0.053	106	0.050
18	Dibromomethane	0.001	<0.001	<0.001	0.051	103	0.050
19	Bromodichloromethane	0.001	<0.001	<0.001	0.054	108	0.050
20	trans-1,3-Dichloropropene	0.001	<0.001	<0.001	0.052	104	0.050
21	cis-1,3-Dichloropropene	0.001	<0.001	<0.001	0.054	107	0.050
22	1,1,2-Trichloroethane	0.001	<0.001	<0.001	0.046	92	0.050
23	Dibromochloromethane	0.001	<0.001	<0.001	0.052	105	0.050
24	Tetrachloroethene	0.001	<0.001	<0.001	0.051	102	0.050
25	Chlorobenzene	0.001	<0.001	<0.001	0.047	94	0.050
26	1,1,1,2-Tetrachloroethane	0.001	<0.001	<0.001	0.051	101	0.050
27	Bromoform	0.001	<0.001	<0.001	0.053	105	0.050
28	1,1,2,2-Tetrachloroethane	0.001	<0.001	<0.001	0.054	108	0.050

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**ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS**

ATTN: SCOTT GUSTIN

PO BOX 4128

LARAMIE, WY 82071

Receiving Date: 08/12/94

Analysis Date: 08/15/94

Reporting Date: 08/17/94

Sampling Date: 08/10/94

Project Number: H1769

Sample Type: AIR

Project Location: ARTESIA, NM

Sample Condition: TEDLAR BAG & INTACT

Project Name: DOWELL - ARTESIA, NM

Sample Received By: RKT

Sample ID: WASH BAY ZONE 2

Analyzed By: BT

**VOLATILE ORGANIC COMPOUNDS**

	(ppm)	Detection Limit	Sample Result H1769-2	Method Blank	Method QC	True Value %IA	True Value QC
29	1,2,3-Trichloropropane	0.001	<0.001	<0.001	0.048	96	0.050
30	Bromobenzene	0.001	<0.001	<0.001	0.050	99	0.050
31	2-Chlorotoluene	0.001	<0.001	<0.001	0.048	96	0.050
32	1,3-Dichlorobenzene	0.001	<0.001	<0.001	0.047	94	0.050
33	1,4 Dichlorobenzene	0.001	<0.001	<0.001	0.049	98	0.050
34	1,2-Dichlorobenzene	0.001	<0.001	<0.001	0.050	100	0.050
35	Acetone	0.001	<0.001	<0.001	0.046	92	0.050

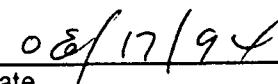
**% Recovery**

**Relative Percent Difference**

35	Dibromofluoromethane	104	0
36	Toluene-D8	92	1
37	4-Bromofluorobenzene	97	0

METHOD: EPA 846-8240

  
\_\_\_\_\_  
Gayle A. Potter, Chemist

  
\_\_\_\_\_  
Date

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**ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS**

ATTN: SCOTT GUSTIN  
PO BOX 4128

LARAMIE, WY 82071

Receiving Date: 08/12/94

Reporting Date: 08/17/94

Project Number: H1769

Project Location: ARTESIA, NM

Project Name: DOWELL - ARTESIA, NM

Sample ID: WASH BAY ZONE 3

Analysis Date: 08/15/94

Sampling Date: 08/10/94

Sample Type: AIR

Sample Condition: TEDLAR BAG & INTACT

Sample Received By: RKT

Analyzed By: BT

**VOLATILE ORGANIC COMPOUNDS**

	(ppm)	Detection Limit	Sample Result H1769-3	Method Blank	Method QC	True Value %IA	True Value QC
1	Dichlorodifluoromethane	0.001	<0.001	<0.001	0.053	105	0.050
2	2-chloroethyl vinyl ether	0.001	<0.001	<0.001	0.053	107	0.050
3	Chloromethane	0.001	<0.001	<0.001	0.049	99	0.050
4	Vinyl chloride	0.001	<0.001	<0.001	0.048	96	0.050
5	Bromomethane	0.001	<0.001	<0.001	0.052	104	0.050
6	Chloroethane	0.001	<0.001	<0.001	0.050	101	0.050
7	Trichlorofluoromethane	0.001	<0.001	<0.001	0.048	97	0.050
8	1,1-Dichloroethene	0.001	<0.001	<0.001	0.050	99	0.050
9	Methylene chloride	0.001	<0.001	<0.001	0.049	99	0.050
10	trans-1,2-Dichloroethene	0.001	<0.001	<0.001	0.050	100	0.050
11	1,1-Dichloroethane	0.001	<0.001	<0.001	0.050	99	0.050
12	Chloroform	0.001	<0.001	<0.001	0.054	109	0.050
13	1,1,1-Trichloroethane	0.001	<0.001	<0.001	0.051	102	0.050
14	1,2-Dichloroethene	0.001	<0.001	<0.001	0.054	107	0.050
15	Carbon tetrachloride	0.001	<0.001	<0.001	0.049	99	0.050
16	1,2-Dichloropropane	0.001	<0.001	<0.001	0.054	107	0.050
17	Trichloroethene	0.001	<0.001	<0.001	0.053	106	0.050
18	Dibromomethane	0.001	<0.001	<0.001	0.051	103	0.050
19	Bromodichloromethane	0.001	<0.001	<0.001	0.054	108	0.050
20	trans-1,3-Dichloropropene	0.001	<0.001	<0.001	0.052	104	0.050
21	cis-1,3-Dichloropropene	0.001	<0.001	<0.001	0.054	107	0.050
22	1,1,2-Trichloroethane	0.001	<0.001	<0.001	0.046	92	0.050
23	Dibromochloromethane	0.001	<0.001	<0.001	0.052	105	0.050
24	Tetrachloroethene	0.001	<0.001	<0.001	0.051	102	0.050
25	Chlorobenzene	0.001	<0.001	<0.001	0.047	94	0.050
26	1,1,1,2-Tetrachloroethane	0.001	<0.001	<0.001	0.051	101	0.050
27	Bromoform	0.001	<0.001	<0.001	0.053	105	0.050
28	1,1,2,2-Tetrachloroethane	0.001	<0.001	<0.001	0.054	108	0.050

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**ANALYTICAL RESULTS FOR  
WESTERN WATER CONSULTANTS**

ATTN: SCOTT GUSTIN

PO BOX 4128

LARAMIE, WY 82071

Receiving Date: 08/12/94

Reporting Date: 08/17/94

Project Number: H1769

Project Location: ARTESIA, NM

Project Name: DOWELL - ARTESIA, NM

Sample ID: WASH BAY ZONE 3

Analysis Date: 08/15/94

Sampling Date: 08/10/94

Sample Type: AIR

Sample Condition: TEDLAR BAG & INTACT

Sample Received By: RKT

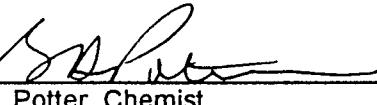
Analyzed By: BT

**VOLATILE ORGANIC COMPOUNDS**

	(ppm)	Detection Limit	Sample Result H1769-3	Method		True Value	
				Blank	QC	%IA	QC
29	1,2,3-Trichloropropane	0.001	<0.001	<0.001	0.048	96	0.050
30	Bromobenzene	0.001	<0.001	<0.001	0.050	99	0.050
31	2-Chlorotoluene	0.001	<0.001	<0.001	0.048	96	0.050
32	1,3-Dichlorobenzene	0.001	<0.001	<0.001	0.047	94	0.050
33	1,4 Dichlorobenzene	0.001	<0.001	<0.001	0.049	98	0.050
34	1,2-Dichlorobenzene	0.001	<0.001	<0.001	0.050	100	0.050
35	Acetone	0.001	<0.001	<0.001	0.046	92	0.050

	% Recovery	Relative Percent Difference
35 Dibromofluoromethane	102	0
36 Toluene-D8	90	1
37 4-Bromofluorobenzene	96	0

METHOD: EPA 846-8240

  
\_\_\_\_\_  
Gayle A. Potter, Chemist

\_\_\_\_\_  
Date

08/17/94

PLEASE NOTE: Liability and Damages. CARDINAL's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by CARDINAL within thirty (30) days after completion of the applicable service. In no event shall CARDINAL be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by CARDINAL, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.





**CHAIN OF CUSTODY RECORD  
AND SAMPLING SHIPPING PAPERS**

PROJECT NO.	PROJECT NAME
90-125	Dowell - AIR TESK
SAMPLERS:	(signature)
CONTAINERS	

DISTRIBUTION: White - ORIG. RETURN TO WWCC

**REMARKS:**

ESTATE PLANNING

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