GW - 114

10/2000

WORK PLANS

AERATION TRENCH

WORK PLAN
GROUND WATER
AERATION TRENCH
ARTESIA, NEW MEXICO

October 13, 2000

Prepared For:

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1.0 INTRODUCTION

1.0 INTRODUCTION

Schlumberger Oilfield Services (Dowell) has been conducting remedial activities and monitoring of the facility in Artesia, New Mexico since 1988. Actions to remediate source areas at the site have included:

- Removal of underground storage tanks and impacted soils at the fuel island and wash bay.
- Installation and operation of SVE systems at the wash bay and maintenance shop.
- Demolition of the acid facility and warehouse along with excavation of impacted soils.

Dowell has also demonstrated that ground water conditions are conducive to the biodegradation of chlorocarbons and anaerobic degradation of residual hydrocarbons. Source removal and natural attenuation processes have succeeded in reducing the concentrations of both chlorocarbons and hydrocarbons in the ground water near the source areas. These results are presented in the "Annual Report, Schlumberger Oilfield Services, Artesia, New Mexico" dated January 13, 2000.

With the source areas removed and a continuation of natural attenuation processes, ground water at the site is being effectively remediated. However, to reduce the possibility of very low levels of these compounds from leaving the Dowell property, a ground water aeration trench near the property boundary is being proposed. The details of the trench are presented in this work plan.

2.0 EXISTING CONDITIONS

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2.1 Geology

Site investigations have been carried out on behalf of Dowell by Western Water Consultants, Inc. (WWC). Drilling at the site has reached a maximum depth of 68 feet below ground surface. All sediments encountered are Quaternary alluvial valley fill included in a unit locally referred to as the carbonate gravel unit which comprises a portion of the "shallow aquifer". An underlying quartzose unit has not been encountered. The sediments beneath the facility consist of red clay, silty clay, and clay interbedded with thin (2-4 inch) white or pinkish-cream carbonate or caliche layers. Zones where carbonate/caliche layers are common may be identified from drill cores, but individual carbonate/caliche layers are difficult to trace laterally between even closely-spaced groundwater monitoring wells.

The water-bearing zones in this interval are the carbonate/caliche layers in which the permeability apparently has been enhanced by solution of carbonate minerals. Below the water table, many, but not all, of the carbonate/caliche layers are saturated, whereas the clays and silts appear only damp to moist. Zones of unsaturated carbonate/caliche below the water table are present irregularly. Carbonate/caliche zones above and below these dry zones are saturated.

The groundwater flow direction has been consistently to the northeast during the 10 years that monitoring has been conducted at the facility. A potentiometric map prepared from water-level data obtained in October, 1999, indicates that groundwater flow is toward the northeast (Figure 1). Water level data are presented in Table 1.

2.2 Constituent Status

The concentration and extent of dissolved-phase BTEX in groundwater has remained stable or declined since 1990 (Figure 3). In October, 1999 BTEX constituents measured in wells on the facility ranged from a maximum of 5.07 mg/l in MW-3 to non-detectable levels in most other wells. Low concentrations of BTEX (0.027 mg/l in MW-2, and 0.021 mg/l in MW-5 were also detected in the October 1999 sampling event.

The concentration and extent of dissolved-phase chlorocarbons in groundwater has remained stable or declined since 1990 (Figure 2). Wells 18, 19, and 22 have shown slight increases since they were installed. Concentration range from 0.469 mg/l in Well 10 to

nondetect in the perimeter wells. While the concentration of total chlorocarbons has remained stable, the composition of the total mixture of constituents has changed through time indicating that biodegradation is occurring.

3.0 SYSTEM DESIGN

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3.1 Purpose

The chlorocarbons and hydrocarbons in the ground water are being degraded biologically as demonstrated in previous report. This is a well suited remediation option for the site. While these processes are occurring, Dowell wants to reduce to possibility of these constituents leaving the property by advection or dispersion. Since of the constituents of concern are volatile, a aeration system is planned to remove these compounds before reaching the property boundary.

3.2 System Concept

Aeration systems frequently use air-sparge wells. The nature of the soils in this area do not lend themselves to sparge wells. Water is transmitted in fractures, not the silt and clay matrix. Representative well logs are included in Appendix A. This type of soil create channeling of air bubbles with an unpredictable distribution. To alleviate this problem a trench will be constructed and backfilled with granular material. Sparge points will then be installed in this material so that the distribution of air will be uniform.

3.3 Trench Design

The trench will be perpendicular to the ground water flow direction. It will start near MW-27 and proceed 600 feet. North west towards MW-25 as shown on Figure 3. This will intercept all portions of the aquifer that have any measurable volatile constituents. Width of the trench will be 3-4 feet to allow practical construction with an excavator. Depth will be 30 feet. The water level is 11-13 feet below ground surface, this will allow 17-19 feet of submergence for the sparge points.

Backfill for the trench will be 3/8" gravel. The gravel will be clean and crushed, the type used for road chips. This is the only readily available source in the area. This gravel will have good permeability for air. Gravel will be installed to the surface so the injected air can be vented to the atmosphere. Concentrations in the aquifer are so minute that air emissions will be negligible.

3.4 Air Injection Design

Air injection points will be spaced 10 feet apart along the entire trench for 60 total points. A spacing of 10 feet with 17-19 feet of submergence will assure overlap between sparge points. Sparge points will be 1" PVC installed using direct push methods once gravel is placed in the trench.

Sufficient air flow to the trench is needed to volatilize all volatile compounds. This is typically expressed in air flow to water flow ratios. To determine this ratio the "Airstrip" program, Release 1.2 1988 was utilized. Though the program is designed for stripping towers, it should provide reasonable estimates of the air/water ratios required for this application. For analysis the worst case of water quality MW-22 was used. Results of the analysis include:

Design Temperature	19°C
Packing	25.4 mm (Gravel will be smaller and more efficient)
Liquid Loading Rate	7.4 gpm/Ft^2 (Program Minimum)
Air/Water Ratio	10
Packing Depth	15 (Submergence will actually be 17-19 Ft.)

Compound	***Initial Concentration***	***Final Concentration***
Benzene	0.019	0.0001
1,1 DCA	0.026	0.0002
1,1 DCE	0.200	0
TCE	0.056	0.0001
PCE	0.207	0.0002

This demonstrates that an air/water ratio of 10 should suitably treat water as seen in MW-22.

The amount of water flowing through the trench is determined using Darcy's equation:

$$Q = kiA$$

K = 540 ft/day (Pump test in previous reports)

I = 1/220 (Potentiometric surface map)

A = 11,400 Ft^2 (600 Ft. length x 19 ft. max in water depth)

Q = 28,000 Ft^2/Day

Therefore with an air/water ratio of 10, 280,000 Ft^3 of air is required per day. If that is distributed over 60 air injection points, each point should deliver 3.3 scfm (standard cubic feet per minute for a total of 200 scfm).

3.5 Trench Construction

It is planned to construct the trench with a large excavator. Since much of the excavated material is saturated, it will be placed in a containment trench constructed prior to excavation. This will control sediment from running off the site. Once the spoil from the trench has dried the soil from the containment trench and topsoil will be graded over the spoil pile and seeded. Details are provided on Figure 4.

3.6 Air Delivery System

Air delivered to the air injection will be through a large header pipe sized to reduce friction losses. The header pipe will be 3-inch Schedule 80 galvanized steel pipe buried 6" into the gravel. Each air injection point will connect to the header pipe and flow will be controlled by a 1-inch bronze gate valve accessible through a small valve box. Pressure at each injection point can be monitored at the top of each injection point using an air-hose quick connect. Details are shown on Figure 4.

The air compressor will have to provide 200 scfm at the required pressure. The maximum pressure is:

Submergence 19 Ft.	228 inches
3" Friction Loss (700 Ft. @ .082 in./ft.)	57 inches
1" Friction Loss (40 Ft. @ .4 in./ft.)	16 inches
	301 inches
Add Safety Factor of 1.2	60 inches
Total	360 inches (13 psi)

A compressor that can deliver 200 scfm at 13 psi is required. It is also required that the compressor deliver oil-free air. The exact compressor utilized will be based on noise generation, manufacturers recommendations, and availability. Two options are possible:

- Roots Rotary Positive Blower, 30 H.P. motor, Frame 65, 1400 rpm.
- Two (2) Parallel Gast Rotary Valve Blowers, Model 1290, 15 H.P. motors.

Manufacturers literature is provided in Appendix B. The exact blower utilized will be contingent on manufacturers recommendations. After compression, the air will increase in temperature approximately 250°F. All piping within the compressor building and out to the aeration trench will be to steel guard against temperature problems.

4.0 OPERATION AND MONITORING

4.0 OPERATION AND MONITORING

4.1 Operation and Monitoring

The system will be operated continuously. Pressure will be monitored at each injection point and values adjusted to provide a uniform pressure at each point.

4.2 Monitoring

Ground water will be monitored to determine the effectiveness of the system. Existing wells MW-26, MW-27, MW-28, MW-29, and MW-3 will be sampled quarterly and analyzed using EPA Method 8260.

TABLES

TABLE 1. GROUND-WATER MEASUREMENTS AND ELEVATIONS, SCHLUMBERGER OILFIELD SERVICES FACILITY, ARTESIA, NEW MEXICO.

WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION* (ft)	DEPTH TO GROUND WATER (ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PRIOR MEASUREMENT
MW-1	01/23/91	30.00	Protective Casing	100.56	17.41	83.15	
	09/13/91				16.04	84.52	1.37
	11/22/91				14.50	86.06	1.54
	03/16/93				13.72	86.84	0.78
	01/09/94				14.62	85.94	-0.90
	04/19/94				14.48	86.08	0.14
	07/20/94				14.38	86.18	0.10
	10/24/94				14.73	85.83	-0.35
	01/24/95				14.20	86.36	0.53
	04/02/95				14.37	86.19	-0.17
	07/31/95				14.76	85.80	-0.39
	10/16/95				14.64	85.92	0.12
	01/10/96				14.59	85.97	0.05
	04/09/96				14.77	85.79	-0.18
	07/20/96				15.84	84.72	-1.07
	10/21/96				14.07	86.49	1.77
	01/21/97				13.24	87.32	0.83
	04/08/97				12.97	87.59	0.27
	07/29/97				13.87	86.69	-0.90
	10/16/97				12.26	88.30	1.61
	02/09/99				14.34	86.22	-2.08
	04/21/99				13.91	86.65	0.43
	07/13/99				11.70	88.86	2.21
	10/19/99				13.22	87.34	-1.52
MW-2	01/23/91	30.00	Protective Casing	99.56	16.95	82.61	
	09/13/91				15.01	84.55	1.94
	11/22/91				13.76	85.80	1.25
	03/16/93				13.16	86.40	0.60
	01/09/94				13.91	85.65	-0.75
	04/19/94				13.80	85.76	0.11
	07/20/94				13.65	85.91	0.15
	10/24/94				13.88	85.68	-0.23
	01/24/95				13.41	86.15	0.47
	04/02/95				13.67	85.89	-0.26
	07/31/95				13.81	85.75	-0.14
	10/16/95				13.78	85.78	0.03
	01/10/96				13.80	85.76	-0.02
	04/09/96				13.98	85.58	-0.18
	07/20/96				14.92	84.64	-0.94
	10/21/96				13.15	86.41	1.77
	01/21/97				12.41	87.15	0.74
	04/08/97				12.21	87.35	0.20
	07/29/97				13.15	86.41	-0.94
	10/16/97				11.63	87.93	1.52
	01/06/98				10.92	88.64	0.71
	04/14/98				11.02	88.54	-0.10
	07/17/98				13.03	86.53	-2.01
	10/27/98				13.61	85.95	-0.58
	02/09/99				13.69	85.87	-0.08
	04/21/99				13.24	86.32	0.45
	07/13/99				11.05	88.51	2.19
	10/20/99				12.59	86.97	-1.54
MW-3	01/23/91	30.00	Protective Casing	98.33	17.28	81.05	
	09/13/91				14.66	83.67	2.62
	11/22/91				13.63	84.70	1.03
	03/16/93				12.89	85.44	0.74
	01/09/94				13.66	84.67	-0.77
	04/19/94				NM	NM	NM
	07/20/94				13.18	85.15	na
	10/24/94				13.27	85.06	-0.09
	01/24/95				13.23	85.10	0.04
	04/02/95				13.60	84.73	-0.37
	07/31/95				13.34	84.99	0.26

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WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION* (ft)	DEPTH TO GROUND WATER (ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PRIOR MEASUREMENT
MW-3 Cont.	10/16/95				13.38	84.95	-0.04
	01/10/96				13.85	84.48	-0.47
	04/09/96				13.91	84.42	-0.06
	07/20/96				14.55	83.78	-0.64
	10/21/96				12.90	85.43	1.65
	01/21/97				12.42	85.91	0.48
	04/08/97				12.43	85.90	-0.01
	07/29/97				13.18	85.15	-0.75
	10/16/97				11.83	86.50	1.35
	01/06/98				11.45	86.88	0.38
	04/14/98				11.44	86.89	0.01
	07/17/98				12.81	85.52	-1.37
	10/27/98				12.60	85.73	0.21
	02/09/99				13.44	84.89	-0.84
	04/21/99				12.75	85.58	0.69
	07/13/99				10.57	87.76	2.18
	10/20/99				12:15	86.18	-1.58
MW-4	01/23/91	50.00	Protective Casing	103.18	20.17	83.01	
	09/13/91				18.54	84.64	1.63
	11/22/91				17.15	86.03	1.39
	03/16/93				16.49	86.69	0.66
	01/09/94				17.28	85.90	-0.79
	04/19/94				17.15	86.03	0.13
	07/20/94				16.99	86.19	0.16
	10/24/94				17.25	85.93	-0.26
	01/24/95				16.78	86.40	0.47
	04/02/95				16.98	86.20	-0.20
	07/31/95				17.26	85.92	-0.28
	10/16/95				17.01	86.17	0.25
	01/10/96				16.95	86.23	0.06
	04/09/96				17.15	86.03	-0.20
	07/20/96				18.08	85.10	-0.93
	10/21/96				16.28	86.90	1.80
	01/21/97				15.37	87.81	0.91
	04/08/97				15.14	88.04	0.23
	07/29/97				16.05	87.13	-0.91
	10/16/97				14.44	88.74	1.61
	01/06/98				13.59	89.59	0.85
	04/14/98				13.91	89.27	-0.32
	07/17/98				16.40	86.78	-2.49
	10/27/98				17.05	86.13	-0.65
	02/09/99				17.08	86.10	-0.03
	04/21/99				16.67	86.51	0.41
	07/13/99				14.49	88.69	2.18
	10/20/99				15.98	87.20	-1.49
MW-5	01/23/91	30.00	Protective Casing	99.87	17.20	82.67	
	09/13/91				15.52	84.35	1.68
	11/22/91				14.19	85.68	1.33
	03/16/93				13.47	86.40	0.72
	01/09/94				14.31	85.56	-0.84
	04/19/94				14.17	85.70	0.14
	07/20/94				13.97	85.90	0.20
	10/24/94				14.21	85.66	-0.24
	01/24/95				13.78	86.09	0.43
	04/02/95				14.05	85.82	-0.27
	07/31/95				14.17	85.70	-0.12
	10/16/95				14.07	85.80	0.10
	01/10/96				14.11	85.76	-0.04
	04/09/96				14.31	85.56	-0.20
	07/20/96				15.20	84.67	-0.89
	10/21/96				13.44	86.43	1.76
	01/21/97				12.69	87.18	0.75
	04/08/97				12.52	87.35	0.17
	07/29/97				13.37	86.50	-0.85
	10/16/97				11.82	88.05	1.55

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MW-5 Cont.	01/06/98				11.09	88.78	0.73
	04/14/98				12.30	87.57	-1.21
	07/17/98				13.32	86.55	-1.02
	10/27/98				13.93	85.94	-0.61
	02/09/99				14.04	85.83	-0.11
	04/21/99				13.54	86.33	0.50
	07/13/99				11.37	88.50	2.17
	10/20/99				12.89	86.98	-1.52
MW-6	01/23/91	35.00	Protective Casing	100.84	19.59	81.25	
	09/13/91				17.43	83.41	2.16
	11/21/91				16.30	84.54	1.13
	03/16/93				15.57	85.27	0.73
	01/09/94				16.42	84.42	-0.85
	04/19/94				16.29	84.55	0.13
	07/19/94				15.79	85.05	0.50
	10/24/94				15.83	85.01	-0.04
	01/24/95				15.94	84.90	-0.11
	04/02/95				16.38	84.46	-0.44
	07/31/95				15.88	84.96	0.50
	10/16/95				16.01	84.83	-0.13
	01/10/96				16.52	84.32	-0.51
	04/09/96				16.70	84.14	-0.18
	07/21/96				17.26	83.58	-0.56
	10/21/96				15.62	85.22	1.64
	01/21/97				15.21	85.63	0.41
	04/08/97				15.30	85.54	-0.09
	07/29/97				16.01	84.83	-0.71
	10/16/97				15.01	85.83	1.00
	01/06/98				14.69	86.15	0.32
	04/14/98				14.45	86.39	0.24
	07/17/98				15.62	85.22	-1.17
	10/27/98				15.77	85.07	-0.15
	02/09/99				16.34	84.50	-0.57
	04/21/99				15.57	85.27	0.77
	07/13/99				13.66	87.18	1.91
	10/19/99				15.04	85.80	-1.38
MW-7	01/23/91	35.00	Protective Casing	100.23	19.01	81.22	
	09/13/91				17.43	82.80	1.58
	11/21/91				16.00	84.23	1.43
	03/16/93				14.91	85.32	1.09
	01/09/94				15.99	84.24	-1.08
	04/19/94				15.83	84.40	0.16
	07/19/94				15.24	84.99	0.59
	10/24/94				15.32	84.91	-0.08
	01/24/95				15.54	84.69	-0.22
	04/02/95				16.00	84.23	-0.46
	07/31/95				15.57	84.66	0.43
	10/16/95				15.61	84.62	-0.04
	01/10/96				16.13	84.10	-0.52
	04/09/96				16.30	83.93	-0.17
	07/21/96				16.81	83.42	-0.51
	10/21/96				15.15	85.08	1.66
	01/21/97				14.81	85.42	0.34
	04/08/97				14.91	85.32	-0.10
	07/29/97				15.48	84.75	-0.57
	10/16/97				14.52	85.71	0.96
	01/06/98				13.27	86.96	1.25
	04/14/98				14.02	86.21	-0.75
	07/17/98				15.10	85.13	-1.08
	10/27/98				15.21	85.02	-0.11
	02/09/99				15.86	84.37	-0.65
	04/21/99				14.96	85.27	0.90
	07/13/99				13.03	87.20	1.93
	10/19/99				14.43	85.80	-1.40

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WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION* (ft)	DEPTH TO GROUND WATER (ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PRIOR MEASUREMENT
MW-8	01/23/91	35.00	Protective Casing	101.47	20.16	81.31	
	09/13/91				18.80	82.67	1.36
	11/21/91				17.29	84.18	1.51
	03/16/93				16.03	85.44	1.26
	01/09/94				17.23	84.24	-1.20
	04/19/94				17.05	84.42	0.18
	07/19/94				16.50	84.97	0.55
	10/24/94				16.56	84.91	-0.06
	01/24/95				16.79	84.68	-0.23
	04/02/95				17.24	84.23	-0.45
	07/31/95				16.94	84.53	0.30
	10/16/95				16.88	84.59	0.06
	01/10/96				17.38	84.09	-0.50
	04/09/96				17.54	83.93	-0.16
	07/21/96				18.10	83.37	-0.56
	10/21/96				16.40	85.07	1.70
	11/22/96				16.42	85.05	-0.02
	01/21/97				16.05	85.42	0.37
	04/08/97				16.11	85.36	-0.06
	07/29/97				16.69	84.78	-0.58
	10/16/97				15.69	85.78	1.00
	01/06/98				15.38	86.09	0.31
	04/14/98				15.15	86.32	0.23
	07/17/98				16.29	85.18	-1.14
	10/27/98				16.39	85.08	-0.10
	02/09/99				17.02	84.45	-0.63
	04/21/99				16.08	85.39	0.94
	07/13/99				14.13	87.34	1.95
	10/19/99				15.56	85.91	-1.43
MW-9	01/26/91	30.00	Protective Casing	102.18	20.08	82.10	
	09/13/91				18.93	83.25	1.15
	11/21/91				17.35	84.83	1.58
	03/16/93				16.19	85.99	1.16
	01/09/94				17.31	84.87	-1.12
	04/19/94				17.33	84.85	-0.02
	07/19/94				16.85	85.33	0.48
	10/24/94				17.05	85.13	-0.20
	01/24/95				16.92	85.26	0.13
	04/02/95				17.23	84.95	-0.31
	07/31/95				17.30	84.88	-0.07
	10/16/95				17.16	85.02	0.14
	01/10/96				17.39	84.79	-0.23
	04/09/96				17.58	84.60	-0.19
	07/21/96				18.38	83.80	-0.80
	10/21/96				16.65	85.53	1.73
	01/21/97				16.12	86.06	0.53
	04/08/97				16.04	86.14	0.08
	07/29/97				16.67	85.51	-0.63
	10/16/97				15.29	86.89	1.38
	01/06/98				14.78	87.40	0.51
	04/14/98				14.89	87.29	-0.11
	07/17/98				16.30	85.88	-1.41
	10/27/98				16.62	85.56	-0.32
	02/09/99				17.14	85.04	-0.52
	04/21/99				16.38	85.80	0.76
	07/13/99				14.27	87.91	2.11
	10/19/99				15.75	86.43	-1.48
MW-10	01/26/91	30.00	Protective Casing	101.34	19.68	81.66	
	09/13/91				18.56	82.78	1.12
	11/21/91				16.96	84.38	1.60
	03/16/93				15.64	85.70	1.32
	01/09/94				16.89	84.45	-1.25
	04/19/94				16.73	84.61	0.16
	07/19/94				16.29	85.05	0.44
	10/24/94				16.39	84.95	-0.10

TABLE 1. GROUND-WATER MEASUREMENTS AND ELEVATIONS, SCHLUMBERGER OILFIELD SERVICES FACILITY, ARTESIA, NEW MEXICO.

WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION* (ft)	DEPTH TO GROUND WATER (ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PRIOR MEASUREMENT
MW-10 Cont.	01/24/95				16.48	84.86	-0.09
	04/02/95				16.88	84.46	-0.40
	07/31/95				16.82	84.52	0.06
	10/16/95				16.65	84.69	0.17
	01/10/96				17.01	84.33	-0.36
	04/09/96				17.20	84.14	-0.19
	07/21/96				17.85	83.49	-0.65
	10/21/96				16.13	85.21	1.72
	01/21/97				15.73	85.61	0.40
	04/08/97				15.70	85.64	0.03
	07/29/97				16.28	85.06	-0.58
	10/16/97				15.16	86.18	1.12
	01/06/98				14.74	86.60	0.42
	04/14/98				14.65	86.69	0.09
	07/17/98				15.90	85.44	-1.25
	10/27/98				16.04	85.30	-0.14
	02/09/99				16.61	84.73	-0.57
	04/21/99				15.68	85.66	0.93
	07/13/99				13.68	87.66	2.00
	10/19/99				15.15	86.19	-1.47
MW-11	01/26/91	30.00	Protective Casing	100.60	19.27	81.33	
	09/13/91				17.81	82.79	1.46
	11/21/91				16.35	84.25	1.46
	03/16/93				15.20	85.40	1.15
	01/09/94				16.31	84.29	-1.11
	04/19/94				16.17	84.43	0.14
	07/19/94				15.63	84.97	0.54
	10/24/94				15.72	84.88	-0.09
	01/24/95				15.89	84.71	-0.17
	04/02/95				16.33	84.27	-0.44
	07/31/95				16.03	84.57	0.30
	10/16/95				*16.00*	*84.60*	*0.03*
	01/10/96				16.45	84.15	-0.45
	04/09/96				16.62	83.98	-0.17
	07/21/96				17.21	83.39	-0.59
	10/21/96				15.52	85.08	1.69
	01/21/97				15.15	85.45	0.37
	04/08/97				15.19	85.41	-0.04
	07/29/97				15.78	84.82	-0.59
	10/16/97				14.75	85.85	1.03
	01/06/98				14.44	86.16	0.31
	04/14/98				14.22	86.38	0.22
	07/17/98				15.41	85.19	-1.19
	10/27/98				15.50	85.10	-0.09
	02/09/99				16.11	84.49	-0.61
	04/21/99				15.21	85.39	0.90
	07/13/99				13.25	87.35	1.96
	10/19/99				14.68	85.92	-1.43
MW-12	01/26/91	34.00	Protective Casing	100.69	19.24	81.45	
	09/13/91				17.59	83.10	1.65
	11/21/91				16.21	84.48	1.38
	03/16/93				15.22	85.47	0.99
	01/09/94				16.25	84.44	-1.03
	04/19/94				16.13	84.56	0.12
	07/19/94				15.63	85.06	0.50
	10/24/94				15.73	84.96	-0.10
	01/24/95				15.80	84.89	-0.07
	04/02/95				16.23	84.46	-0.43
	07/31/95				15.96	84.73	0.27
	10/16/95				15.93	84.76	0.03
	01/10/96				16.35	84.34	-0.42
	04/09/96				16.52	84.17	-0.17
	07/21/96				17.15	83.54	-0.63
	10/21/96				15.48	85.21	1.67
	01/21/97				15.04	85.65	0.44

TABLE 1. GROUND-WATER MEASUREMENTS AND ELEVATIONS, SCHLUMBERGER OILFIELD SERVICES FACILITY, ARTESIA, NEW MEXICO.

WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION* (ft)	DEPTH TO GROUND WATER (ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PRIOR MEASUREMENT
MW-12 Cont.	04/08/97				15.10	85.59	-0.06
	07/29/97				15.73	84.96	-0.63
	10/16/97				14.57	86.12	1.16
	01/06/98				14.22	86.47	0.35
	04/14/98				14.09	86.60	0.13
	07/17/98				15.35	85.34	-1.26
	10/27/98				15.36	85.33	-0.01
	02/09/99				16.00	84.69	-0.64
	04/21/99				15.19	85.50	0.81
	07/13/99				13.12	87.57	2.07
	10/19/99				14.63	86.06	-1.51
MW-13	09/13/91	45.00	Protective Casing	99.25	15.10	84.15	
	11/21/91				13.95	85.30	1.15
	03/16/93				13.22	86.03	0.73
	01/09/94				14.03	85.22	-0.81
	04/19/94				13.90	85.35	0.13
	07/20/94				13.70	85.55	0.20
	10/24/94				13.86	85.39	-0.16
	01/24/95				13.56	85.69	0.30
	04/02/95				13.87	85.38	-0.31
	07/31/95				13.84	85.41	0.03
	10/16/95				13.83	85.42	0.01
	01/10/96				14.02	85.23	-0.19
	04/09/96				14.20	85.05	-0.18
	07/20/96				15.04	84.21	-0.84
	10/21/96				13.31	85.94	1.73
	01/21/97				12.70	86.55	0.61
	04/08/97				12.48	86.77	0.22
	07/29/97				13.43	85.82	-0.95
	10/16/97				12.02	87.23	1.41
	01/06/98				11.44	87.81	0.58
	04/14/98				11.50	87.75	-0.06
	07/17/98				13.10	86.15	-1.60
	10/27/98				13.58	85.67	-0.48
	02/09/99				13.81	85.44	-0.23
	04/21/99				13.22	86.03	0.59
	07/13/99				11.08	88.17	2.14
	10/20/99				12.64	86.61	-1.56
MW-14	09/13/91	35.00	Protective Casing	98.74	14.60	84.14	
	11/21/91				13.61	85.13	0.99
	03/16/93				13.00	85.74	0.61
	01/09/94				13.71	85.03	-0.71
	04/19/94				13.63	85.11	0.08
	07/20/94				13.39	85.35	0.24
	10/24/94				13.48	85.26	-0.09
	01/25/95				13.26	85.48	0.22
	04/02/95				13.61	85.13	-0.35
	07/31/95				13.44	85.30	0.17
	10/16/95				13.52	85.22	-0.08
	01/10/96				13.76	84.98	-0.24
	04/09/96				13.96	84.78	-0.20
	07/20/96				14.74	84.00	-0.78
	10/21/96				13.03	85.71	1.71
	01/21/97				12.47	86.27	0.56
	04/08/97				12.44	86.30	0.03
	07/29/97				13.30	85.44	-0.86
	10/16/97				11.93	86.81	1.37
	01/06/98				11.46	87.28	0.47
	04/14/98				11.48	87.26	-0.02
	07/17/98				12.94	85.80	-1.46
	10/27/98				13.25	85.49	-0.31
	02/09/99				13.59	85.15	-0.34
	04/21/99				12.96	85.78	0.63
	07/13/99				10.85	87.89	2.11
	10/20/99				12.42	86.32	-1.57

TABLE 1. GROUND-WATER MEASUREMENTS AND ELEVATIONS, SCHLUMBERGER OILFIELD SERVICES FACILITY, ARTESIA, NEW MEXICO.

WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION* (ft)	DEPTH TO GROUND WATER (ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PRIOR MEASUREMENT
MW-15	09/13/91	34.00	Protective Casing	100.05	16.30	83.75	
	11/21/91				15.01	85.04	1.29
	03/16/93				13.95	86.10	1.06
	01/09/94				14.91	85.14	-0.96
	04/19/94				14.80	85.25	0.11
	07/20/94				14.56	85.49	0.24
	10/24/94				14.73	85.32	-0.17
**	01/24/95				16.00	84.05	-1.27
	04/02/95				14.80	85.25	1.20
	07/31/95				14.82	85.23	-0.02
	10/16/95				14.74	85.31	0.08
	01/10/96				14.95	85.10	-0.21
	04/09/96				15.11	84.94	-0.16
	07/20/96				15.96	84.09	-0.85
	10/21/96				14.22	85.83	1.74
	01/21/97				13.64	86.41	0.58
	04/08/97				13.53	86.52	0.11
	07/29/97				14.32	85.73	-0.79
	10/16/97				12.90	87.15	1.42
	01/06/98				12.30	87.75	0.60
	04/14/98				12.38	87.67	-0.08
	07/17/98				13.93	86.12	-1.55
	10/27/98				14.38	85.67	-0.45
	02/09/99				14.68	85.37	-0.30
	04/21/99				14.03	86.02	0.65
	07/13/99				11.90	88.15	2.13
	10/20/99				13.42	86.63	-1.52
MW-17D	04/02/95	19.00	Protective Casing	101.29	16.80	84.49	
	07/31/95				16.48	84.81	0.32
	10/16/95				16.51	84.78	-0.03
	01/10/96				16.90	84.39	-0.39
	04/09/96				17.10	84.19	-0.20
	07/21/96				17.70	83.59	-0.60
	10/21/96				16.02	85.27	1.68
	01/21/97				15.60	85.69	0.42
	04/08/97				15.64	85.65	-0.04
	07/29/97				16.32	84.97	-0.68
	10/16/97				15.11	86.18	1.21
	01/06/98				14.80	86.49	0.31
	04/14/98				14.68	86.61	0.12
	07/17/98				15.92	85.37	-1.24
	10/27/98				15.95	85.34	-0.03
	02/09/99				16.63	84.66	-0.68
	04/21/99				15.82	85.47	0.81
	07/13/99				13.77	87.52	2.05
	10/19/99				15.32	85.97	-1.55
MW-17A	04/02/95	26.00	Protective Casing	100.57	16.05	84.52	
	07/31/95				15.75	84.82	0.30
	10/16/95				15.77	84.80	-0.02
	01/10/96				16.18	84.39	-0.41
	04/09/96				16.37	84.20	-0.19
	07/21/96				16.98	83.59	-0.61
	10/21/96				15.30	85.27	1.68
	01/21/97				14.88	85.69	0.42
	04/08/97				14.92	85.65	-0.04
	07/29/97				15.59	84.98	-0.67
	10/16/97				14.41	86.16	1.18
	01/06/98				14.09	86.48	0.32
	04/14/98				13.95	86.62	0.14
	07/17/98				15.20	85.37	-1.25
	10/27/98				15.23	85.34	-0.03
	02/09/99				15.88	84.69	-0.65
	04/21/99				15.10	85.47	0.78
	07/13/99				13.02	87.55	2.08
	10/19/99				14.54	86.03	-1.52

TABLE 1. GROUND-WATER MEASUREMENTS AND ELEVATIONS, SCHLUMBERGER OILFIELD SERVICES FACILITY, ARTESIA, NEW MEXICO.

WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION* (ft)	DEPTH TO GROUND WATER (ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PRIOR MEASUREMENT
MW-17B	04/02/95	34.00	Protective Casing	101.28	16.79	84.49	
	07/31/95				16.50	84.78	0.29
	10/16/95				16.51	84.77	-0.01
	01/10/96				16.92	84.36	-0.41
	04/09/96				17.10	84.18	-0.18
	07/21/96				17.71	83.57	-0.61
	10/21/96				16.02	85.26	1.69
	01/21/97				15.64	85.64	0.38
	04/08/97				15.67	85.61	-0.03
	07/29/97				16.30	84.98	-0.63
	10/16/97				15.16	86.12	1.14
	01/06/98				14.84	86.44	0.32
	04/14/98				14.70	86.58	0.14
	07/17/98				15.92	85.36	-1.22
	10/27/98				16.00	85.28	-0.08
	02/09/99				16.62	84.66	-0.62
	04/21/99				15.79	85.49	0.83
	07/13/99				13.77	87.51	2.02
	10/19/99				15.26	86.02	-1.49
MW-17C	04/02/95	61.00	Protective Casing	101.33	16.93	84.40	
	07/31/95				16.66	84.67	0.27
	10/16/95				16.64	84.69	0.02
	01/10/96				17.08	84.25	-0.44
	04/09/96				17.25	84.08	-0.17
	07/21/96				17.85	83.48	-0.60
	10/21/96				16.17	85.16	1.68
	01/21/97				15.75	85.58	0.42
	04/08/97				15.80	85.53	-0.05
	07/29/97				16.46	84.87	-0.66
	10/16/97				15.33	86.00	1.13
	01/06/98				15.00	86.33	0.33
	04/14/98				14.85	86.48	0.15
	07/17/98				16.09	85.24	-1.24
	10/27/98				16.17	85.16	-0.08
	02/09/99				16.77	84.56	-0.60
	04/21/99				15.95	85.38	0.82
	07/13/99				13.94	87.39	2.01
	10/19/99				15.43	85.90	-1.49
MW-18	04/02/95	28.00	Protective Casing	98.72	14.77	83.95	
	07/31/95				14.21	84.51	0.56
	10/16/95				14.25	84.47	-0.04
	01/10/96				14.90	83.82	-0.65
	04/09/96				15.05	83.67	-0.15
	07/21/96				15.44	83.28	-0.39
	10/21/96				13.78	84.94	1.66
	11/22/96				13.84	84.88	-0.06
	01/21/97				13.54	85.18	0.30
	04/08/97				13.66	85.06	-0.12
	07/29/97				14.13	84.59	-0.47
	10/16/97				13.34	85.38	0.79
	01/06/98				13.13	85.59	0.21
	04/14/98				12.79	85.93	0.34
	07/17/98				13.75	84.97	-0.96
	10/27/98				13.82	84.90	-0.07
	02/09/99				14.58	84.14	-0.76
	04/21/99				13.58	85.14	1.00
	07/13/99				11.66	87.06	1.92
	10/19/99				13.01	85.71	-1.35
MW-19	04/02/95	28.00	Protective Casing	99.08	14.86	84.22	
	07/31/95				14.29	84.79	0.57
	10/16/95				14.39	84.69	-0.10
	01/10/96				14.98	84.10	-0.59
	04/09/96				15.14	83.94	-0.16
	07/21/96				15.62	83.46	-0.48

TABLE 1. GROUND-WATER MEASUREMENTS AND ELEVATIONS, SCHLUMBERGER OILFIELD SERVICES FACILITY, ARTESIA, NEW MEXICO.

WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION* (ft)	DEPTH TO GROUND WATER (ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PRIOR MEASUREMENT
MW-19 Cont.	10/21/96				14.00	85.08	1.62
	11/22/96				14.03	85.05	-0.03
	01/21/97				13.69	85.39	0.34
	04/08/97				13.76	85.32	-0.07
	07/29/97				14.37	84.71	-0.61
	10/16/97				13.47	85.61	0.90
	01/06/98				13.21	85.87	0.26
	04/14/98				12.90	86.18	0.31
	07/17/98				13.96	85.12	-1.06
	10/27/98				14.11	84.97	-0.15
	02/09/99				14.74	84.34	-0.63
	04/21/99				13.91	85.17	0.83
	07/13/99				11.99	87.09	1.92
	10/19/99				13.35	85.73	-1.36
MW-20	11/22/96	28.00	Protective Casing	101.09	16.28	84.81	
	01/21/97				16.08	85.01	0.20
	04/08/97				16.04	85.05	0.04
	07/29/97				16.46	84.63	-0.42
	10/16/97				15.76	85.33	0.70
	01/06/98				15.61	85.48	0.15
	04/14/98				15.13	85.96	0.48
	07/17/98				16.15	84.94	-1.02
	10/27/98				16.07	85.02	0.08
	02/09/99				16.94	84.15	-0.87
	04/21/99				15.48	85.61	1.46
	07/13/99				13.50	87.59	1.98
	10/19/99				15.25	85.84	-1.75
MW-21	11/22/96	25.00	Protective Casing	98.88	14.36	84.52	
	01/21/97				14.26	84.62	0.10
	04/08/97			98.89	14.41	84.48	-0.14
	07/29/97				14.54	84.35	-0.13
	10/16/97				14.18	84.71	0.36
	01/06/98				14.17	84.72	0.01
	04/14/98				13.60	85.29	0.57
	07/17/98				14.21	84.68	-0.61
	10/27/98				14.22	84.67	-0.01
	02/09/99				15.29	83.60	-1.07
	04/21/99				13.94	84.95	1.35
	07/13/99				12.03	86.86	1.91
	10/19/99				13.41	85.48	-1.38
MW-22	11/22/96	24.50	Protective Casing	97.16	12.88	84.28	
	01/21/97				12.94	84.22	-0.06
	04/08/97			97.14	13.42	83.72	-0.50
	07/29/97				13.16	83.98	0.26
	10/16/97				13.23	83.91	-0.07
	01/06/98				13.46	83.68	-0.23
	04/14/98				12.80	84.34	0.66
	07/17/98				12.65	84.49	0.15
	10/27/98				12.90	84.24	-0.25
	02/09/99				14.35	82.79	-1.45
	04/21/99				13.15	83.99	1.20
	07/13/99				11.45	85.69	1.70
	10/19/99				12.22	84.92	-0.77
MW-23	11/22/96	25.00	Protective Casing	97.33	12.72	84.61	
	01/21/97				12.59	84.74	0.13
	04/08/97			97.30	13.07	84.23	-0.51
	07/29/97				13.14	84.16	-0.07
	10/16/97				13.06	84.24	0.08
	01/06/98				13.13	84.17	-0.07
	04/14/98				12.52	84.78	0.61
	07/17/98				12.64	84.66	-0.12
	10/27/98				12.84	84.46	-0.20
	02/09/99				14.16	83.14	-1.32

TABLE 1. GROUND-WATER MEASUREMENTS AND ELEVATIONS, SCHLUMBERGER OILFIELD SERVICES FACILITY, ARTESIA, NEW MEXICO.

WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION* (ft)	DEPTH TO GROUND WATER (ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PRIOR MEASUREMENT
MW-23 Cont.	04/21/99				13.25	84.05	0.91
	07/13/99				11.55	85.75	1.70
	10/19/99				12.39	84.91	-0.84
MW-24	11/22/96	27.00	Protective Casing	103.42	17.91	85.51	
	01/21/97				17.56	85.86	0.35
	04/08/97			103.41	17.40	86.01	0.15
	07/29/97				17.72	85.69	-0.32
	10/16/97				16.58	86.83	1.14
	01/06/98				16.01	87.40	0.57
	04/14/98				16.17	87.24	-0.16
	07/17/98				17.49	85.92	-1.32
	10/27/98				17.40	86.01	0.09
	02/09/99				18.09	85.32	-0.69
	04/21/99				16.98	86.43	1.11
	07/13/99				14.88	88.53	2.10
	10/19/99				16.51	86.90	-1.63
MW-25	04/08/97	25.00	Protective Casing	97.64	14.23	83.41	-
	07/29/97				13.77	83.87	0.46
	10/16/97				13.99	83.65	-0.22
	01/06/98				14.37	83.27	-0.38
	04/14/98				13.65	83.99	0.72
	07/17/98				13.26	84.38	0.39
	10/27/98				13.57	84.07	-0.31
	02/09/99				15.17	82.47	-1.60
	04/21/99				13.75	83.89	1.42
	07/13/99				12.16	85.48	1.59
	10/19/99				12.81	84.83	-0.65
MW-26	04/08/97	25.00	Protective Casing	96.11	13.06	83.05	-
	07/29/97				12.23	83.88	0.83
	10/16/97				12.75	83.36	-0.52
	01/06/98				13.40	82.71	-0.65
	04/14/98				12.61	83.50	0.79
	07/17/98				11.64	84.47	0.97
	10/27/98				12.16	83.95	-0.52
	02/09/99				14.13	81.98	-1.97
	04/21/99				12.41	83.70	1.72
	07/13/99				11.11	85.00	1.30
	10/19/99				11.40	84.71	-0.29
MW-27	04/08/97	25.00	Protective Casing	96.17	13.06	83.11	-
	07/29/97				12.21	83.96	0.85
	10/16/97				12.79	83.38	-0.58
	01/06/98				13.56	82.61	-0.77
	04/14/98				12.75	83.42	0.81
	07/17/98				11.53	84.64	1.22
	10/27/98				12.09	84.08	-0.56
	02/09/99				14.29	81.88	-2.20
	04/21/99				12.53	83.64	1.76
	07/13/99				11.41	84.76	1.12
	10/19/99				11.48	84.69	-0.07
MW-28	07/17/98	25.00	Protective Casing	97.93	14.32	83.61	-
	10/27/98				14.43	83.50	-0.11
	02/09/99				15.71	82.22	-1.28
	04/21/99				14.28	83.65	1.43
	07/13/99				12.41	85.52	1.87
	10/19/99				13.48	84.45	-1.07

TABLE 1. GROUND-WATER MEASUREMENTS AND ELEVATIONS, SCHLUMBERGER OILFIELD SERVICES FACILITY, ARTESIA, NEW MEXICO.

WELL NUMBER	DATE MEASURED	TOTAL WELL DEPTH (Ft)	MEASURING POINT	MEASURING POINT ELEVATION* (ft)	DEPTH TO GROUND WATER (ft)	STATIC WATER ELEVATION (Ft)	DIFFERENCE FROM PRIOR MEASUREMENT
MW-29	07/17/98	25.00	Protective Casing	97.04	14.07	82.97	-
	10/27/98				14.36	82.68	-0.29
	02/09/99				15.83	81.21	-1.47
	04/21/99				14.48	82.56	1.35
	07/13/99				12.84	84.20	1.64
	10/19/99				13.35	83.69	-0.51
MW-30	07/17/98	25.00	Protective Casing	96.58	12.68	83.90	-
	10/27/98				13.12	83.46	-0.44
	02/09/99				14.88	81.70	-1.76
	04/21/99				13.38	83.20	1.50
	07/13/99				11.85	84.73	1.53
	10/19/99				12.28	84.30	-0.43

NOTES:

NM = not measured

* = 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.

** = water level measurement may be in error

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-1	01/26/91	0.033	ND(0.005)	0.029	0.130	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	09/15/91	ND(0.001)	ND(0.001)	0.002	0.009	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	11/22/91	0.026	ND(0.001)	0.007	0.014	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	03/16/93	0.016	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	01/10/94	0.006	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	04/19/94	0.035	*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)
	07/20/94	0.008	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)
	10/25/94	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)
	01/25/95	0.025	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)
	04/03/95	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)
	08/01/95	0.082	0.008	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
*	10/18/95	0.064	*0.004*	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
*	01/10/96	0.076	0.007	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	04/13/96	0.048	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)
	07/21/96	0.040	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)
	10/22/96	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)
	01/24/97	0.002	*0.001*	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	04/09/97	0.006	0.002	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	07/30/97	0.018	0.004	ND(0.002)	ND(0.004)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
	10/17/97	0.026	0.003	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/19/99	ND(0.001)	0.002	0.004	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MW-2	01/26/91	0.210	0.590	0.071	1.700	0.048	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.110
dup.	01/26/91	0.190	0.450	0.062	1.300	0.043	ND(0.01)	ND(0.01)	0.011	ND(0.01)	0.078
	09/15/91	0.120	0.050	0.006	0.690	0.100	ND(0.005)	0.005	0.023	ND(0.005)	0.150
*	11/22/91	0.033	0.001	0.001	0.088	0.110	ND(0.001)	0.007	0.016	ND(0.001)	0.064
	03/16/93	0.019	ND(0.001)	ND(0.001)	ND(0.005)	0.060	ND(0.001)	0.002	0.003	ND(0.001)	0.028
	01/10/94	0.024	ND(0.001)	0.001	ND(0.005)	0.039	ND(0.001)	ND(0.001)	ND(0.001)	0.001	0.079
	04/19/94	0.045	*0.004*	ND(0.005)	ND(0.005)	0.028	ND(0.005)	ND(0.005)	ND(0.005)	*0.001*	0.048
dup.	04/19/94	0.043	*0.005*	ND(0.005)	ND(0.005)	0.030	ND(0.005)	ND(0.005)	ND(0.005)	*0.001*	0.052
	07/20/94	0.022	ND(0.005)	ND(0.005)	ND(0.005)	0.026	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.021
	10/25/94	0.045	0.008	ND(0.005)	ND(0.005)	0.030	ND(0.005)	ND(0.005)	ND(0.005)	*0.001*	0.037
	01/25/95	0.057	0.022	ND(0.005)	ND(0.005)	0.024	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.079
	04/03/95	0.050	ND(0.005)	ND(0.005)	ND(0.005)	0.026	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.035
	08/01/95	0.032	*0.021*	*ND(0.005)*	*ND(0.005)*	*0.027*	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	ND(0.005)	0.033
*	10/18/95	0.078	0.040	ND(0.005)	ND(0.005)	0.015	ND(0.005)	ND(0.005)	ND(0.005)	*0.002*	0.088
dup. *	10/18/95	0.081	0.045	ND(0.005)	ND(0.005)	0.017	ND(0.005)	ND(0.005)	ND(0.005)	*0.003*	0.097
*	01/11/96	0.220	0.200	ND(0.005)	ND(0.005)	0.010	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.260
*	04/13/96	0.095	0.130	ND(0.005)	0.110	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.140
#	07/21/96	0.092	*0.079*	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	ND(0.005)	ND(0.005)	0.061
	10/22/96	0.014	0.012	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.018
	01/24/97	0.012	0.018	ND(0.001)	ND(0.002)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	0.003	0.024
	04/09/97	0.015	0.029	ND(0.002)	ND(0.004)	0.003	ND(0.002)	ND(0.002)	ND(0.002)	0.007	0.034
	07/30/97	0.010	0.045	ND(0.002)	ND(0.004)	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	0.009	0.050
	10/17/97	*0.004*	*0.024*	*ND(0.002)*	*ND(0.004)*	*0.001*	*ND(0.002)*	*ND(0.002)*	ND(0.002)	0.008	0.031
	10/28/98	*0.002*	0.035	ND(0.002)	0.031	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	0.011	0.054
	10/28/98	ND(0.005)	0.043	ND(0.005)	ND(0.01)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.012	0.061
	04/22/99	0.001	0.026	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.012	0.036
	10/20/99	ND(0.0025)	0.038	*0.002*	ND(0.005)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.054
dup.	10/20/99	*ND(0.005)*	0.035	*0.002*	*ND(0.01)*	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	ND(0.005)	0.015	0.054

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-3	01/26/91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	09/15/91	0.200	1.200	1.200	14.000	ND(0.2)	ND(0.2)	ND(0.2)	0.330	ND(0.2)	ND(0.2)
	11/22/91	0.110	0.680	0.530	6.800	0.094	0.004	0.190	0.110	0.150	0.057
	03/16/93	ND(0.001)	1.000	0.650	8.600	ND(0.001)	ND(0.001)	ND(0.001)	0.260	ND(0.001)	ND(0.001)
dup.	03/16/93	0.130	0.780	0.540	9.000	ND(0.001)	ND(0.001)	0.044	0.260	0.037	0.330
	07/01/93	0.140	1.000	0.520	9.100	0.140	ND(0.05)	ND(0.05)	0.160	ND(0.05)	ND(0.05)
	01/10/94	0.140	1.000	0.700	11.000	0.190	ND(0.1)	ND(0.1)	0.210	ND(0.1)	ND(0.1)
	04/19/94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/94	0.092	0.460	0.160	3.000	0.077	*0.002*	0.036	0.069	0.064	0.011
	10/25/94	0.130	0.960	0.250	4.200	0.200	ND(0.05)	0.064	ND(0.05)	0.130	*0.210*
dup.	10/25/94	0.110	0.830	0.300	4.700	0.180	ND(0.05)	0.051	ND(0.05)	0.100	*0.024*
	01/25/95	ND(1)	*0.810*	ND(1)	7.100	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	04/03/95	0.047	0.450	ND(0.025)	1.300	0.100	ND(0.025)	0.110	ND(0.025)	0.150	ND(0.025)
dup.	04/03/95	0.047	0.450	ND(0.025)	1.200	0.100	ND(0.025)	0.120	ND(0.025)	0.150	ND(0.025)
	08/01/95	0.088	0.950	0.190	6.500	0.230	ND(0.05)	0.089	ND(0.05)	0.081	ND(0.05)
*	10/18/95	0.100	1.100	0.240	8.200	0.280	ND(0.05)	0.066	*0.049*	0.089	*0.042*
*	01/11/96	0.054	0.620	0.081	4.990	0.150	ND(0.05)	0.076	ND(0.05)	0.100	ND(0.05)
*	04/13/96	0.039	0.480	ND(0.005)	3.900	0.051	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
#	07/22/96	0.060	0.190	0.056	0.890	0.130	ND(0.005)	0.009	0.009	0.054	0.014
	10/22/96	ND(0.1)	0.580	ND(0.1)	3.500	0.150	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
	01/24/97	0.048	0.269	0.012	0.886	0.077	0.004	0.043	ND(0.010)	0.070	*0.007*
	04/09/97	0.034	0.137	ND(0.010)	0.146	0.065	ND(0.010)	0.064	ND(0.010)	0.107	0.013
	07/30/97	0.019	0.177	ND(0.010)	0.644	0.057	ND(0.010)	0.043	ND(0.010)	0.103	0.035
	10/17/97	0.044	0.464	0.041	3.300	0.069	ND(0.020)	*0.016*	ND(0.020)	*0.018*	*0.016*
	01/07/98	*0.042*	0.503	*0.051*	3.720	*0.086*	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
	04/15/98	*0.018*	0.078	ND(0.020)	0.431	0.055	ND(0.020)	0.044	ND(0.020)	0.080	ND(0.020)
dup.	04/15/98	*0.018*	0.077	ND(0.020)	0.416	0.052	ND(0.020)	0.044	ND(0.020)	0.079	ND(0.020)
	07/18/98	*0.009*	0.036	ND(0.005)	0.027	0.050	ND(0.005)	0.052	ND(0.005)	0.083	0.022
	10/28/98	*0.016*	0.187	ND(0.020)	1.239	0.053	ND(0.020)	0.029	ND(0.020)	0.056	0.029
	02/09/99	0.016	0.117	0.012	0.763	0.051	0.002	0.036	ND(0.001)	0.051	0.024
	04/22/99	0.009	0.054	ND(0.0025)	0.084	0.049	ND(0.0025)	0.040	ND(0.0025)	0.061	0.026
	07/13/99	0.038	0.406	0.026	2.147	0.042	ND(0.0025)	0.009	ND(0.0025)	0.005	0.014
	10/20/99	0.013	0.576	0.024	4.460	0.044	ND(0.0025)	0.005	ND(0.0025)	0.007	0.027
MW-4	01/26/91	0.098	0.011	ND(0.001)	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	09/15/91	0.260	ND(0.002)	ND(0.002)	0.015	0.006	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
	11/22/91	0.180	0.100	0.001	0.037	ND(0.001)	ND(0.001)	0.019	ND(0.001)	ND(0.001)	ND(0.001)
	03/16/93	0.072	0.051	ND(0.001)	ND(0.005)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	01/10/94	0.064	0.074	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	04/19/94	0.074	0.085	ND(0.005)	*0.003*	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	07/20/94	0.100	0.053	ND(0.005)	0.005	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	10/25/94	0.140	0.260	ND(0.005)	*0.004*	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.005
	01/25/95	0.150	0.400	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)
	04/03/95	0.100	0.190	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	08/01/95	0.069	0.570	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.005	ND(0.005)
*	10/18/95	ND(0.005)	0.110	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
*	01/11/96	ND(0.005)	0.036	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
*	04/13/96	ND(0.005)	0.008	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
dup. *	04/13/96	ND(0.005)	0.007	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
#	07/21/96	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)
	10/22/96	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)

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-4 Cont.	01/24/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	04/09/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
	07/30/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/17/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
	10/28/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
	04/22/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/20/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MW-5	01/26/91	0.014	ND(0.001)	ND(0.001)	ND(0.005)	0.004	ND(0.001)	0.002	0.001	ND(0.001)	0.010
	09/15/91	ND(0.001)	0.001	ND(0.001)	ND(0.005)	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.018
	11/22/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.018
	03/16/93	0.078	0.007	ND(0.001)	ND(0.005)	0.013	ND(0.001)	0.003	ND(0.001)	0.001	0.026
	01/10/94	0.025	ND(0.001)	ND(0.001)	ND(0.005)	0.008	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.026
	04/19/94	0.070	0.011	ND(0.005)	ND(0.005)	0.008	ND(0.005)	ND(0.005)	ND(0.005)	*0.002*	0.015
	07/20/94	0.220	0.041	ND(0.005)	ND(0.005)	0.011	ND(0.005)	ND(0.005)	ND(0.005)	*0.004*	0.025
dup.	07/20/94	0.320	0.076	ND(0.005)	*0.001*	0.026	ND(0.005)	*0.002*	ND(0.005)	0.006	0.039
	10/25/94	*0.240*	*0.059*	*ND(0.005)*	*ND(0.005)*	*0.020*	*ND(0.005)*	*0.002*	*ND(0.005)*	*0.008*	0.043
	01/25/95	0.460	0.130	ND(0.005)	ND(0.005)	0.023	ND(0.005)	*0.002*	ND(0.005)	0.018	0.093
	04/03/95	0.390	0.087	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.015	0.062
	08/01/95	0.170	0.082	ND(0.005)	ND(0.005)	0.013	ND(0.005)	ND(0.005)	ND(0.005)	0.018	0.049
	10/18/95	0.200	0.093	ND(0.005)	ND(0.005)	0.011	ND(0.005)	ND(0.005)	ND(0.005)	0.021	0.054
	01/11/96	0.078	0.012	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.008	0.025
	04/13/96	0.068	0.037	ND(0.005)	0.027	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.025
	07/21/96	0.092	0.057	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.025
	10/22/96	0.066	0.023	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.020
	01/24/97	0.031	0.025	ND(0.001)	ND(0.002)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	0.003	0.019
	04/09/97	0.040	0.040	ND(0.002)	ND(0.004)	0.003	ND(0.002)	ND(0.002)	ND(0.002)	0.004	0.028
	07/30/97	0.018	0.044	ND(0.002)	ND(0.004)	*0.002*	ND(0.002)	ND(0.002)	ND(0.002)	0.003	0.029
	10/17/97	0.016	0.048	ND(0.002)	ND(0.004)	*0.001*	ND(0.002)	ND(0.002)	ND(0.002)	0.004	0.033
	10/28/98	0.006	0.009	ND(0.002)	ND(0.004)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	0.006	0.027
	10/20/99	*0.012*	*0.008*	*0.002*	*ND(0.002)*	*0.003*	*ND(0.001)*	*ND(0.001)*	*ND(0.001)*	0.007	0.034
MW-6	01/26/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.007	ND(0.001)	0.170	0.007	ND(0.001)	0.083
	09/15/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.006	ND(0.001)	0.084	ND(0.001)	ND(0.001)	0.043
	11/22/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.005	ND(0.001)	0.064	ND(0.001)	ND(0.001)	0.035
	03/16/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.007	ND(0.001)	0.098	0.001	ND(0.001)	0.056
	01/10/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.017	ND(0.001)	0.140	0.002	ND(0.001)	0.120
	04/19/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.013	ND(0.005)	0.070	*0.002*	ND(0.005)	0.072
	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.009	ND(0.005)	0.098	*0.001*	ND(0.005)	0.065
dup.	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.013	ND(0.005)	0.110	*0.001*	ND(0.005)	0.073
	10/25/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.012	ND(0.005)	0.079	ND(0.005)	ND(0.005)	0.059
	01/25/95	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	*0.012*	*ND(0.005)*	*0.065*	*ND(0.005)*	*ND(0.005)*	0.057
	04/03/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.015	ND(0.005)	0.074	ND(0.005)	ND(0.005)	0.048
	08/01/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.013	ND(0.005)	0.060	ND(0.005)	ND(0.005)	0.030
	10/18/95	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	*0.013*	*ND(0.005)*	*0.051*	ND(0.005)	ND(0.005)	0.029
	01/11/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.011	ND(0.005)	0.042	ND(0.005)	ND(0.005)	0.022
	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.012	ND(0.005)	0.047	ND(0.005)	ND(0.005)	0.021
	07/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.011	ND(0.005)	0.037	ND(0.005)	ND(0.005)	0.016
	10/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.013	ND(0.005)	0.041	ND(0.005)	ND(0.005)	0.016
	01/24/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.010	ND(0.001)	0.025	ND(0.001)	ND(0.001)	0.006
	04/09/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.010	ND(0.002)	0.025	ND(0.002)	ND(0.002)	0.009

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-6 Cont.	07/30/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.006	ND(0.002)	0.016	ND(0.002)	ND(0.002)	0.008
	10/17/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.011	ND(0.002)	0.023	ND(0.002)	ND(0.002)	0.007
	10/28/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.007	ND(0.002)	0.016	ND(0.002)	ND(0.002)	0.008
	10/19/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.010	ND(0.001)	0.024	ND(0.001)	ND(0.001)	0.010
MW-7	01/26/91	0.006	ND(0.001)	ND(0.001)	ND(0.005)	0.021	ND(0.001)	0.260	0.010	0.068	0.200
	09/15/91	0.009	ND(0.001)	ND(0.001)	ND(0.005)	0.038	ND(0.001)	0.320	0.005	0.069	0.270
dup.	09/15/91	0.009	ND(0.001)	ND(0.001)	ND(0.005)	0.034	ND(0.001)	0.310	0.006	0.069	0.280
	11/22/91	0.009	ND(0.005)	ND(0.005)	ND(0.025)	0.035	ND(0.005)	0.360	ND(0.005)	0.053	0.310
	03/16/93	0.007	ND(0.001)	ND(0.001)	ND(0.005)	0.027	ND(0.001)	0.280	0.002	0.050	0.160
	01/10/94	0.005	ND(0.001)	ND(0.001)	ND(0.005)	0.023	ND(0.001)	0.210	0.004	0.046	0.160
	04/19/94	*0.007*	ND(0.005)	ND(0.005)	ND(0.005)	0.021	ND(0.005)	0.120	*0.003*	0.038	0.120
	07/20/94	0.006	ND(0.005)	ND(0.005)	ND(0.005)	0.018	ND(0.005)	0.220	*0.003*	0.040	0.160
	10/25/94	0.007	ND(0.005)	ND(0.005)	ND(0.005)	0.033	ND(0.005)	0.230	ND(0.005)	0.050	0.240
dup.	10/25/94	*0.006*	ND(0.025)	ND(0.025)	ND(0.025)	0.026	ND(0.025)	0.200	ND(0.025)	0.045	0.230
	01/25/95	0.005	ND(0.005)	ND(0.005)	ND(0.005)	0.027	ND(0.005)	0.210	*0.002*	0.041	0.330
	04/03/95	0.006	ND(0.005)	ND(0.005)	ND(0.005)	0.029	ND(0.005)	0.290	ND(0.005)	0.038	0.260
	08/01/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.038	ND(0.005)	0.300	ND(0.005)	0.051	0.250
	10/18/95	0.005	ND(0.005)	ND(0.005)	ND(0.005)	0.024	ND(0.005)	0.300	*0.002*	0.045	0.300
	01/11/96	0.006	ND(0.005)	ND(0.005)	ND(0.005)	0.027	ND(0.005)	0.260	ND(0.005)	0.035	0.250
	04/13/96	0.006	ND(0.005)	ND(0.005)	ND(0.005)	0.027	ND(0.005)	0.370	ND(0.005)	0.030	0.260
	07/22/96	0.006	ND(0.005)	ND(0.005)	ND(0.005)	0.029	ND(0.005)	0.280	ND(0.005)	0.026	0.220
	10/22/96	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.028	ND(0.010)	0.350	ND(0.010)	0.023	0.260
	01/24/97	0.005	ND(0.001)	ND(0.001)	ND(0.002)	0.021	*0.001*	0.244	0.002	0.019	0.203
	04/09/97	0.005	ND(0.002)	ND(0.002)	ND(0.004)	0.022	ND(0.002)	0.186	ND(0.002)	0.017	0.148
	07/30/97	*0.005*	ND(0.010)	ND(0.010)	ND(0.020)	0.023	ND(0.010)	0.236	ND(0.010)	0.019	0.255
	10/17/97	*0.005*	ND(0.010)	ND(0.010)	ND(0.020)	0.029	ND(0.010)	0.255	ND(0.010)	0.020	0.153
	10/28/98	*0.004*	ND(0.010)	ND(0.010)	ND(0.020)	0.024	ND(0.010)	0.193	ND(0.010)	0.031	0.251
	04/22/99	0.005	ND(0.005)	ND(0.005)	ND(0.010)	0.034	ND(0.005)	0.255	ND(0.005)	0.043	0.275
	10/19/99	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.010)	0.034	ND(0.005)	0.184	ND(0.005)	0.045	0.198
MW-8	01/26/91	ND(0.001)	ND(0.001)	ND(0.001)	0.005	ND(0.001)	ND(0.001)	0.015	0.004	0.001	0.003
	09/15/91	0.007	ND(0.001)	ND(0.001)	ND(0.005)	0.017	ND(0.001)	0.101	0.007	0.039	0.050
	11/22/91	0.004	ND(0.001)	ND(0.001)	ND(0.005)	0.020	ND(0.001)	0.087	0.003	0.045	0.063
	03/16/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.004	ND(0.001)	0.054	0.005	0.006	0.009
	01/10/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.004	ND(0.001)	0.054	0.004	0.006	0.006
dup.	01/10/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.005	ND(0.001)	0.073	0.004	0.008	0.010
	04/19/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	*0.004*	ND(0.005)	0.039	*0.004*	*0.004*	0.007
	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	*0.004*	ND(0.005)	0.069	0.005	0.006	0.011
	10/25/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.008	ND(0.005)	0.082	ND(0.005)	0.010	0.019
	01/25/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.007	ND(0.005)	0.076	0.006	0.011	0.022
	04/03/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.006	ND(0.005)	0.074	ND(0.005)	0.008	0.017
	08/01/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.015	ND(0.005)	0.110	ND(0.005)	0.023	0.053
	10/18/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.009	ND(0.005)	0.081	*0.002*	0.015	0.044
	01/11/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.069	ND(0.005)	0.006	0.019
	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.007	ND(0.005)	0.099	ND(0.005)	0.011	0.036
	07/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.006	ND(0.005)	0.087	ND(0.005)	0.010	0.035
	10/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.022	ND(0.005)	0.150	ND(0.005)	0.035	0.089
dup.	10/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.020	ND(0.005)	0.140	ND(0.005)	0.030	0.072
	01/24/97	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	0.019	*0.001*	0.081	0.002	0.017	0.018
dup.	01/24/97	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	0.017	*0.001*	0.088	0.002	0.014	0.017

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-8 Cont.	04/09/97	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	0.015	ND(0.002)	0.097	ND(0.002)	0.019	0.028
	07/30/97	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	0.012	ND(0.002)	0.105	ND(0.002)	0.015	0.048
dup.	07/30/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.011	ND(0.002)	0.106	*0.002*	0.015	0.055
	10/17/97	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	0.010	ND(0.002)	0.104	ND(0.002)	0.010	0.026
	10/28/98	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.010)	*0.003*	ND(0.005)	0.111	ND(0.005)	ND(0.005)	0.010
dup.	10/28/98	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	*0.003*	ND(0.01)	0.128	ND(0.01)	ND(0.01)	0.009
	04/22/99	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	0.003	ND(0.0025)	0.152	*0.002*	ND(0.0025)	0.007
	10/19/99	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.005)	ND(0.0025)	ND(0.0025)	0.135	ND(0.0025)	ND(0.0025)	*0.002*
MW-9	01/26/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.022	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.001
	09/15/91	0.002	0.032	ND(0.001)	ND(0.005)	0.035	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)
	11/22/91	0.004	0.170	ND(0.001)	ND(0.005)	0.029	ND(0.001)	0.002	ND(0.001)	ND(0.001)	0.001
	03/16/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.012	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)
	01/10/94	ND(0.001)	ND(0.001)	0.002	ND(0.005)	0.012	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	04/19/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.010	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	*0.001*	0.017	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	10/25/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.014	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	01/25/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.014	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	04/03/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.015	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	08/01/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.022	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
*	10/18/95	ND(0.005)	0.016	ND(0.005)	ND(0.005)	0.017	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
*	01/10/96	ND(0.005)	0.032	ND(0.005)	ND(0.005)	0.020	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.020	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
#	07/22/96	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	*0.021*	*ND(0.005)*	*ND(0.005)*	ND(0.005)	ND(0.005)	ND(0.005)
	10/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.024	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	01/24/97	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	0.019	ND(0.001)	0.002	ND(0.001)	0.002	*0.001*
	04/09/97	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	0.022	ND(0.001)	0.002	ND(0.001)	0.002	*0.001*
	07/30/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.020	ND(0.002)	*0.001*	ND(0.002)	*0.001*	ND(0.002)
	10/17/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.018	ND(0.001)	*0.001*	ND(0.001)	*0.001*	ND(0.001)
	10/28/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
	10/19/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.004	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)
MW-10	01/26/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	0.004	ND(0.001)	ND(0.001)	ND(0.001)
	09/15/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	0.012	0.002	ND(0.001)	ND(0.001)
	11/22/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	0.029	0.005	ND(0.001)	ND(0.001)
	03/16/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	0.025	0.001	ND(0.001)	ND(0.001)
	01/10/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	0.021	ND(0.001)	ND(0.001)	ND(0.001)
	04/19/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.022	*0.001*	ND(0.005)	ND(0.005)
	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.052	*0.004*	ND(0.005)	ND(0.005)
	10/25/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.051	ND(0.005)	ND(0.005)	ND(0.005)
	01/25/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.042	ND(0.005)	ND(0.005)	ND(0.005)
dup.	01/25/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.057	0.005	ND(0.005)	ND(0.005)
	04/03/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.070	ND(0.005)	ND(0.005)	ND(0.005)
	08/01/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.130	0.007	ND(0.005)	ND(0.005)
	10/18/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.130	0.006	ND(0.005)	ND(0.005)
	01/10/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.063	ND(0.005)	ND(0.005)	ND(0.005)
	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.170	ND(0.005)	ND(0.005)	ND(0.005)
	07/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.170	ND(0.005)	ND(0.005)	ND(0.005)
	10/22/96	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.250	ND(0.010)	ND(0.010)	ND(0.010)
	01/24/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	*0.001*	ND(0.001)	0.181	0.005	ND(0.001)	ND(0.001)
	04/09/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	*0.001*	ND(0.002)	0.158	0.004	ND(0.002)	ND(0.002)

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-10 Cont.	07/30/97	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.010)	ND(0.005)	ND(0.005)	0.156	0.004	ND(0.005)	ND(0.005)
	10/17/97	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.010)	0.196	0.004	ND(0.010)	ND(0.010)
	10/28/98	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.010)	0.111	ND(0.010)	ND(0.010)	ND(0.010)
	04/22/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	0.098	0.001	ND(0.001)	ND(0.001)
	10/19/99	ND(0.0025)	ND(0.0025)	0.002	ND(0.005)	ND(0.0025)	ND(0.0025)	0.080	ND(0.0025)	ND(0.0025)	ND(0.0025)
MW-11	01/26/91	0.010	ND(0.005)	ND(0.005)	ND(0.025)	0.045	ND(0.005)	0.310	ND(0.005)	0.140	0.360
	09/15/91	0.056	ND(0.001)	ND(0.001)	ND(0.005)	0.068	ND(0.001)	0.470	0.017	0.120	0.330
*	11/22/91	0.048	ND(0.001)	ND(0.001)	ND(0.005)	0.052	ND(0.001)	0.390	0.018	0.110	0.320
*	03/16/93	0.005	ND(0.001)	ND(0.001)	ND(0.005)	0.040	ND(0.001)	0.220	0.004	0.074	0.160
	01/10/94	0.005	ND(0.001)	ND(0.001)	ND(0.005)	0.042	ND(0.001)	0.250	ND(0.001)	0.083	0.320
	04/19/94	0.009	ND(0.005)	0.002	ND(0.005)	0.042	ND(0.005)	0.170	0.006	0.079	0.170
	07/20/94	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	0.057	ND(0.025)	0.460	0.010	0.120	0.360
	10/25/94	0.009	ND(0.005)	ND(0.005)	ND(0.005)	0.067	0.001	0.220	ND(0.005)	0.110	0.300
	01/25/95	0.012	ND(0.005)	ND(0.005)	ND(0.005)	0.072	ND(0.005)	0.240	0.014	0.120	0.360
	04/03/95	0.009	ND(0.005)	ND(0.005)	ND(0.005)	0.062	ND(0.005)	0.410	0.013	0.100	0.430
	08/01/95	0.007	ND(0.005)	ND(0.005)	ND(0.005)	0.050	ND(0.005)	0.360	0.014	0.063	0.330
dup.	08/01/95	0.007	ND(0.005)	ND(0.005)	ND(0.005)	0.051	ND(0.005)	0.310	0.015	0.071	0.340
*	10/18/95	0.005	ND(0.005)	ND(0.005)	ND(0.005)	0.043	ND(0.005)	0.270	0.010	0.057	0.330
*	01/11/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.033	ND(0.005)	0.230	0.011	0.043	0.310
	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.240	ND(0.005)	0.020	0.230
	07/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.035	ND(0.005)	0.200	0.008	0.036	0.260
	10/22/96	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.034	ND(0.010)	0.230	ND(0.010)	0.029	0.260
	01/24/97	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.029	0.001	0.157	0.008	0.026	0.212
	04/09/97	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.033	ND(0.002)	0.128	0.008	0.027	0.180
	07/30/97	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.010)	0.032	ND(0.005)	0.102	0.006	0.032	0.170
	10/17/97	0.003	ND(0.010)	ND(0.010)	ND(0.020)	0.048	ND(0.010)	0.142	0.005	0.031	0.063
	01/07/98	0.004	ND(0.010)	ND(0.010)	ND(0.020)	0.054	ND(0.010)	0.145	0.005	0.049	0.176
dup.	01/07/98	0.004	ND(0.010)	ND(0.010)	ND(0.020)	0.061	ND(0.010)	0.155	0.006	0.053	0.200
	04/15/98	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	0.059	ND(0.010)	0.130	ND(0.010)	0.057	0.151
	07/18/98	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	0.071	ND(0.010)	0.120	ND(0.010)	0.064	0.143
	10/28/98	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	0.072	ND(0.010)	0.110	ND(0.010)	0.065	0.129
	02/09/99	0.004	ND(0.001)	ND(0.001)	ND(0.002)	0.070	0.001	0.130	0.002	0.070	0.157
dup.	02/09/99	0.004	ND(0.001)	ND(0.001)	ND(0.002)	0.083	0.001	0.143	0.002	0.071	0.149
	04/22/99	0.004	ND(0.0025)	ND(0.0025)	ND(0.005)	0.090	ND(0.0025)	0.123	ND(0.0025)	0.067	0.117
	07/13/99	0.004	ND(0.0025)	ND(0.0025)	ND(0.005)	0.069	ND(0.0025)	0.116	ND(0.0025)	0.058	0.130
	10/19/99	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	0.059	ND(0.0025)	0.094	ND(0.0025)	0.047	0.112
MW-12	01/26/91	0.260	0.950	0.230	4.500	0.140	ND(0.025)	ND(0.025)	0.057	0.073	0.042
	09/15/91	0.150	0.620	0.630	2.200	0.120	ND(0.001)	0.300	0.110	0.200	0.061
*	11/22/91	0.110	0.430	0.034	0.810	0.110	0.002	0.240	0.100	0.260	0.051
	03/16/93	0.160	0.800	0.014	1.000	0.120	ND(0.001)	0.039	0.055	0.036	0.018
	01/10/94	0.160	0.870	0.026	0.990	0.150	ND(0.01)	0.075	0.053	0.070	0.024
	04/19/94	0.110	0.110	0.049	0.250	0.110	0.002	0.064	0.065	0.073	0.033
	07/20/94	0.160	0.720	0.071	0.610	0.150	ND(0.025)	0.073	0.075	0.086	0.022
	10/25/94	0.096	0.660	ND(0.025)	0.100	0.160	ND(0.025)	0.085	ND(0.025)	0.120	0.015
*	01/25/95	0.160	0.680	0.089	0.660	0.190	ND(0.005)	0.120	0.095	0.076	0.069
dup.	01/25/95	0.140	0.850	0.075	0.860	0.150	ND(0.005)	0.090	0.075	0.062	0.053
	04/03/95	0.150	0.790	0.200	1.100	0.160	ND(0.005)	0.110	0.096	0.043	0.056
	08/01/95	0.130	0.700	0.280	1.400	0.170	ND(0.025)	0.150	0.079	0.098	0.059
*	10/18/95	0.140	0.990	0.360	2.030	0.170	ND(0.005)	0.100	0.100	0.058	0.050

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-12 Cont.	01/11/96	0.100	0.680	0.180	1.840	0.140	ND(0.005)	0.097	0.059	0.060	0.048
*	04/13/96	0.098	0.620	0.180	0.690	0.150	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.023
#	07/22/96	0.130	0.920	0.310	1.790	0.160	ND(0.005)	0.087	0.170	0.045	0.046
	10/22/96	ND(0.1)	0.830	0.190	1.800	0.190	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
	01/24/97	0.093	0.822	0.133	1.738	0.162	ND(0.010)	0.046	0.060	0.037	0.039
	04/09/97	0.086	0.920	0.138	1.869	0.159	ND(0.020)	0.040	0.051	0.046	0.039
dup.	04/09/97	0.079	0.855	0.129	1.837	0.159	ND(0.010)	0.040	0.054	0.047	0.039
MW-12 Cont.	07/30/97	0.090	0.969	0.127	2.294	0.136	ND(0.020)	0.035	0.062	0.036	0.043
	10/17/97	0.178	1.290	0.853	5.540	0.185	ND(0.050)	0.061	0.186	ND(0.050)	*0.045*
	10/28/98	*0.064*	1.150	ND(0.1)	0.745	0.141	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
	04/22/99	0.075	1.150	ND(0.025)	0.612	0.171	ND(0.025)	0.031	0.040	0.034	0.034
	04/22/99	0.063	0.953	0.008	0.546	0.140	ND(0.005)	0.017	0.039	0.022	0.017
	10/19/99	0.051	1.090	ND(0.025)	0.176	0.207	ND(0.025)	*0.017*	ND(0.025)	0.027	ND(0.025)
dup.	10/19/99	0.049	1.100	ND(0.025)	0.151	0.208	ND(0.025)	*0.017*	ND(0.025)	0.026	ND(0.025)
MW-13	09/15/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.030	0.002	0.038	0.005	0.004	0.240
	11/22/91	0.430	ND(0.001)	ND(0.001)	ND(0.005)	0.016	0.001	0.025	0.002	0.002	0.110
	03/16/93	0.033	ND(0.001)	ND(0.001)	ND(0.005)	0.013	ND(0.001)	0.014	ND(0.001)	0.002	0.062
dup.	03/16/93	0.034	ND(0.001)	ND(0.001)	ND(0.005)	0.013	0.001	0.015	ND(0.001)	0.002	0.066
	01/10/94	0.022	ND(0.001)	ND(0.001)	ND(0.005)	0.016	ND(0.001)	0.007	ND(0.001)	0.003	0.055
	04/19/94	0.013	ND(0.005)	ND(0.005)	ND(0.005)	0.011	*0.001*	*0.003*	ND(0.005)	*0.003*	0.032
	07/20/94	0.016	ND(0.005)	ND(0.005)	ND(0.005)	0.016	*0.001*	*0.005*	ND(0.005)	*0.004*	0.034
	10/25/94	0.011	ND(0.005)	ND(0.005)	ND(0.005)	0.013	ND(0.005)	*0.004*	ND(0.005)	*0.004*	0.040
	01/22/95	0.008	ND(0.005)	ND(0.005)	ND(0.005)	0.015	ND(0.005)	*0.002*	ND(0.005)	0.005	0.029
	04/03/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.013	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.022
	08/01/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.017	ND(0.005)	ND(0.005)	ND(0.005)	0.007	0.025
	10/18/95	*0.003*	ND(0.005)	ND(0.005)	ND(0.005)	0.015	ND(0.005)	ND(0.005)	ND(0.005)	0.008	0.020
	01/11/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.011	ND(0.005)	ND(0.005)	ND(0.005)	0.005	0.015
	04/13/96	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)	0.011
	07/21/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.009	ND(0.005)	ND(0.005)	ND(0.005)	0.007	0.013
	10/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.007	ND(0.005)	ND(0.005)	ND(0.005)	0.006	0.010
	01/24/97	0.001	ND(0.001)	ND(0.001)	ND(0.002)	0.005	*0.001*	*0.001*	ND(0.001)	0.003	0.003
	04/09/97	0.001	ND(0.001)	ND(0.001)	ND(0.002)	0.004	ND(0.001)	*0.001*	ND(0.001)	0.005	0.005
dup.	04/09/97	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.005	ND(0.001)	*0.001*	ND(0.001)	0.006	0.005
	07/30/97	0.001	ND(0.001)	ND(0.001)	ND(0.002)	0.004	ND(0.001)	ND(0.001)	ND(0.001)	0.007	0.009
	10/17/97	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	0.003	ND(0.001)	ND(0.001)	ND(0.001)	0.006	0.009
dup.	10/17/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.003	ND(0.002)	ND(0.002)	ND(0.002)	0.006	0.007
	01/07/98	0.001	ND(0.001)	ND(0.001)	ND(0.002)	0.004	ND(0.001)	ND(0.001)	ND(0.001)	0.008	0.011
	04/15/98	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	0.003	ND(0.001)	ND(0.001)	ND(0.001)	0.007	0.009
	07/18/98	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	0.005	ND(0.001)	ND(0.001)	ND(0.001)	0.010	0.016
	10/28/98	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	0.003	ND(0.001)	ND(0.001)	ND(0.001)	0.009	0.015
	02/09/99	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.007	ND(0.001)	0.001	ND(0.001)	0.019	0.026
	04/22/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.003	ND(0.001)	ND(0.001)	ND(0.001)	0.008	0.009
	07/13/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.003	ND(0.001)	ND(0.001)	ND(0.001)	0.006	0.008
	10/20/99	ND(0.001)	ND(0.001)	*0.001*	ND(0.002)	0.003	ND(0.001)	ND(0.001)	ND(0.001)	0.006	0.005
MW-14	09/15/91	0.022	ND(0.001)	ND(0.001)	ND(0.005)	0.130	0.002	0.300	0.014	0.002	0.460
	11/22/91	0.002	ND(0.001)	ND(0.001)	ND(0.005)	0.140	0.002	0.310	0.009	0.002	0.400
dup.	11/22/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.110	0.002	0.320	0.010	ND(0.001)	0.440
	03/16/93	0.020	ND(0.001)	ND(0.001)	ND(0.005)	0.080	0.001	0.180	0.004	0.002	0.210
	01/10/94	0.011	ND(0.001)	ND(0.001)	ND(0.005)	0.057	ND(0.001)	0.100	ND(0.001)	0.002	0.300

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-14 Cont.	04/19/94	0.005	ND(0.005)	ND(0.005)	ND(0.005)	0.058	ND(0.005)	0.056	0.001	ND(0.005)	0.160
	07/20/94	0.010	ND(0.025)	ND(0.025)	ND(0.025)	0.072	ND(0.025)	0.110	ND(0.025)	ND(0.025)	0.210
	10/25/94	0.010	ND(0.005)	ND(0.005)	ND(0.005)	0.079	0.001	0.094	ND(0.005)	ND(0.005)	0.230
	01/25/95	0.004	ND(0.005)	ND(0.005)	ND(0.005)	0.083	ND(0.005)	0.070	ND(0.005)	ND(0.005)	0.022
	04/03/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.063	ND(0.005)	0.058	ND(0.005)	ND(0.005)	0.130
	08/01/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.074	ND(0.005)	0.072	ND(0.005)	ND(0.005)	0.098
	10/18/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.062	ND(0.005)	0.044	ND(0.005)	ND(0.005)	0.087
	01/11/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.051	ND(0.005)	0.038	ND(0.005)	ND(0.005)	0.061
dup.	01/11/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.053	ND(0.005)	0.040	ND(0.005)	ND(0.005)	0.064
	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.051	ND(0.005)	0.045	ND(0.005)	ND(0.005)	0.057
	07/21/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.048	ND(0.005)	0.037	ND(0.005)	ND(0.005)	0.055
dup.	07/21/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.052	ND(0.005)	0.043	ND(0.005)	ND(0.005)	0.064
	10/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.056	ND(0.005)	0.049	ND(0.005)	ND(0.005)	0.062
	01/24/97	0.001	ND(0.001)	ND(0.001)	ND(0.002)	0.040	0.001	0.023	ND(0.001)	ND(0.001)	0.014
dup.	01/24/97	0.001	ND(0.001)	ND(0.001)	ND(0.002)	0.045	0.001	0.027	ND(0.001)	ND(0.001)	0.010
	04/09/97	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.010)	0.039	ND(0.005)	0.023	ND(0.005)	ND(0.005)	0.024
	07/30/97	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.010)	0.036	ND(0.005)	0.021	ND(0.005)	ND(0.005)	0.043
	10/17/97	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.010)	0.039	ND(0.005)	0.019	ND(0.005)	ND(0.005)	0.048
	10/28/98	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.010)	0.045	ND(0.005)	0.019	ND(0.005)	ND(0.005)	0.074
	10/20/99	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.002	0.054	ND(0.0025)	0.019	ND(0.0025)	ND(0.0025)	0.080
MW-15	09/15/91	0.002	0.010	ND(0.001)	0.006	0.026	0.001	0.005	ND(0.001)	ND(0.001)	0.004
	11/22/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.033	0.001	0.009	ND(0.001)	0.003	0.006
	03/16/93	0.001	0.002	ND(0.001)	ND(0.005)	0.082	0.001	0.013	ND(0.001)	0.006	0.009
	01/10/94	ND(0.001)	0.008	ND(0.001)	ND(0.005)	0.048	ND(0.001)	0.009	ND(0.001)	0.004	0.013
dup.	01/10/94	0.001	0.009	0.002	ND(0.005)	0.054	ND(0.001)	0.010	ND(0.001)	0.004	0.015
	04/19/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.027	ND(0.005)	0.005	ND(0.005)	0.003	0.008
	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.049	0.001	0.006	ND(0.005)	0.004	0.005
	10/25/94	0.001	ND(0.005)	ND(0.005)	ND(0.005)	0.029	ND(0.005)	0.006	ND(0.005)	0.004	0.006
	01/25/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.027	ND(0.005)	0.006	ND(0.005)	0.005	0.008
	04/03/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.020	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	08/01/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.022	ND(0.005)	0.006	ND(0.005)	ND(0.005)	ND(0.005)
	10/18/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.015	ND(0.005)	0.001	ND(0.005)	0.004	0.002
	01/10/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.013	ND(0.005)	0.003	ND(0.005)	ND(0.005)	ND(0.005)
	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.009	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	07/21/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.011	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	10/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.010	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
dup.	10/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.010	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
	01/24/97	0.001	ND(0.001)	ND(0.001)	ND(0.002)	0.012	0.001	0.001	ND(0.001)	ND(0.001)	ND(0.001)
	04/09/97	0.001	ND(0.001)	ND(0.001)	ND(0.002)	0.012	0.001	0.002	ND(0.001)	0.001	ND(0.001)
	07/30/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.005	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)
	10/17/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.013	0.001	0.001	ND(0.001)	ND(0.001)	ND(0.001)
	10/28/98	0.001	ND(0.001)	ND(0.001)	ND(0.002)	0.013	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)
	10/20/99	0.002	0.004	0.003	0.147	0.040	ND(0.001)	0.005	ND(0.001)	0.002	0.002
MW-17D	04/03/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.062	ND(0.005)	0.018	0.012	0.019	0.014
	08/01/95	0.013	ND(0.005)	ND(0.005)	ND(0.005)	0.095	ND(0.005)	0.058	0.020	0.052	0.028
*	10/18/95	0.007	ND(0.005)	ND(0.005)	ND(0.005)	0.067	ND(0.005)	0.044	0.015	0.047	0.054
*	01/11/96	0.006	ND(0.005)	ND(0.005)	ND(0.005)	0.066	ND(0.005)	0.036	0.012	0.046	0.043
dup. *	01/11/96	0.006	ND(0.005)	ND(0.005)	ND(0.005)	0.050	ND(0.005)	0.032	0.009	0.036	0.039
#	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.064	ND(0.005)	0.046	0.009	0.049	0.032

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-17D Cont.	07/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.077	ND(0.005)	0.053	0.009	0.060	0.037
	10/22/96	0.007	ND(0.005)	ND(0.005)	ND(0.005)	0.066	ND(0.005)	0.041	ND(0.005)	0.059	0.033
	01/24/97	0.004	ND(0.001)	ND(0.001)	ND(0.002)	0.052	*0.001*	0.023	0.004	0.039	0.022
	04/09/97	0.003	ND(0.001)	ND(0.001)	ND(0.002)	0.030	ND(0.001)	0.020	0.003	0.026	0.022
	07/30/97	0.003	ND(0.002)	ND(0.002)	ND(0.004)	0.029	ND(0.002)	0.013	*0.002*	0.028	0.018
	10/17/97	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.056	ND(0.002)	0.015	*0.001*	0.038	0.011
	10/28/98	0.006	ND(0.005)	ND(0.005)	ND(0.01)	0.050	ND(0.005)	0.009	ND(0.005)	0.045	0.012
	10/19/99	0.005	ND(0.0025)	ND(0.0025)	ND(0.005)	0.091	ND(0.0025)	0.010	ND(0.0025)	0.038	0.012
MW-17A	04/03/95	0.009	ND(0.005)	ND(0.005)	ND(0.005)	0.079	ND(0.005)	0.061	0.029	0.025	0.066
	08/01/95	0.010	ND(0.005)	ND(0.005)	ND(0.005)	0.085	ND(0.005)	0.075	0.025	0.037	0.064
*	10/18/95	0.009	ND(0.005)	ND(0.005)	ND(0.005)	0.073	ND(0.005)	0.059	0.019	0.041	0.090
dup. *	10/18/95	0.010	ND(0.005)	ND(0.005)	ND(0.005)	0.078	ND(0.005)	0.059	0.019	0.042	0.086
	01/11/96	0.009	ND(0.005)	ND(0.005)	ND(0.005)	0.077	ND(0.005)	0.068	0.019	0.042	0.076
*	04/13/96	0.006	ND(0.005)	ND(0.005)	ND(0.005)	0.075	ND(0.005)	0.069	ND(0.005)	0.043	0.065
#	07/22/96	0.008	ND(0.005)	ND(0.005)	ND(0.005)	0.076	ND(0.005)	0.069	0.012	0.051	0.077
	10/22/96	0.006	ND(0.005)	ND(0.005)	ND(0.005)	0.069	ND(0.005)	0.058	ND(0.005)	0.050	0.054
	01/24/97	0.006	ND(0.001)	ND(0.001)	*0.001*	0.058	ND(0.001)	0.044	0.007	0.045	0.049
	04/09/97	0.007	ND(0.001)	ND(0.001)	ND(0.002)	0.065	*0.001*	0.051	0.008	0.051	0.051
	07/30/97	*0.004*	ND(0.005)	ND(0.005)	ND(0.010)	0.051	ND(0.005)	0.045	*0.004*	0.045	0.062
	10/17/97	0.006	ND(0.005)	ND(0.005)	ND(0.010)	0.079	ND(0.005)	0.050	*0.003*	0.052	0.053
	10/28/98	0.009	ND(0.005)	ND(0.005)	ND(0.010)	0.075	ND(0.005)	0.018	ND(0.005)	0.044	0.033
	10/19/99	0.005	ND(0.0025)	ND(0.0025)	ND(0.005)	0.134	ND(0.0025)	0.018	ND(0.0025)	0.032	0.030
MW-17B	04/03/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.036	ND(0.005)	0.180	0.019	ND(0.005)	0.180
	08/01/95	0.006	ND(0.005)	ND(0.005)	ND(0.005)	0.040	ND(0.005)	0.190	0.020	0.026	0.180
dup.	08/01/95	0.008	ND(0.005)	ND(0.005)	ND(0.005)	0.049	ND(0.005)	0.250	0.023	0.030	0.320
*	10/18/95	*0.006*	*ND(0.005)*	*ND(0.005)*	*ND(0.005)*	*0.046*	*ND(0.005)*	*0.210*	*0.024*	*0.034*	*0.370*
	01/11/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.034	ND(0.005)	0.170	0.014	0.022	0.190
	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.030	ND(0.005)	0.160	ND(0.005)	0.013	0.270
	07/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.030	ND(0.005)	0.150	ND(0.005)	0.016	0.250
dup.	07/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.030	ND(0.005)	0.150	0.015	0.016	0.280
	10/22/96	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.038	ND(0.01)	0.190	ND(0.01)	0.030	0.250
	01/24/97	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.038	0.001	0.110	0.008	0.019	0.070
	04/09/97	0.004	ND(0.002)	ND(0.002)	ND(0.004)	0.035	*0.001*	0.115	0.005	0.021	0.132
	07/30/97	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.010)	0.026	ND(0.005)	0.080	*0.004*	0.017	0.141
	10/17/97	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.053	ND(0.01)	0.103	ND(0.01)	0.027	0.149
	10/28/98	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.073	ND(0.01)	0.072	ND(0.01)	0.045	0.178
	10/19/99	0.005	0.012	ND(0.0025)	ND(0.005)	0.143	ND(0.0025)	0.053	0.005	0.051	0.059
MW-17C *	04/03/95	*0.032*	*0.060*	*0.005*	*0.054*	*0.058*	ND(0.005)	*0.099*	ND(0.005)	0.091	0.013
2nd *	04/03/95	0.034	0.057	ND(0.005)	0.045	0.063	ND(0.005)	0.110	ND(0.005)	0.095	0.017
*	08/01/95	0.022	0.047	ND(0.005)	ND(0.005)	0.073	ND(0.005)	0.140	ND(0.005)	0.120	0.012
*	10/18/95	0.019	0.026	ND(0.005)	ND(0.005)	0.063	*0.003*	0.120	ND(0.005)	0.140	0.024
*	01/11/96	0.020	0.035	ND(0.005)	ND(0.005)	0.058	ND(0.005)	0.120	ND(0.005)	0.120	0.015
*	04/13/96	0.011	0.009	ND(0.005)	ND(0.005)	0.057	ND(0.005)	0.130	ND(0.005)	0.100	0.013
#	07/22/96	0.016	ND(0.005)	ND(0.005)	ND(0.005)	0.058	ND(0.005)	0.130	ND(0.005)	0.120	0.014
	10/22/96	0.015	ND(0.005)	ND(0.005)	ND(0.005)	0.045	ND(0.005)	0.120	ND(0.005)	0.100	0.012
	01/24/97	0.009	ND(0.001)	ND(0.001)	ND(0.002)	0.051	0.003	0.099	ND(0.001)	0.078	0.005
	04/09/97	0.011	ND(0.002)	ND(0.002)	ND(0.004)	0.049	0.002	0.105	ND(0.002)	0.100	0.008
	07/30/97	0.010	ND(0.005)	ND(0.005)	ND(0.010)	0.043	*0.003*	0.093	ND(0.005)	0.097	0.010

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-17C Cont.	10/17/97	0.031	ND(0.01)	ND(0.01)	ND(0.02)	0.066	*0.003*	0.115	ND(0.01)	0.086	0.013
	10/28/98	0.011	ND(0.01)	ND(0.01)	ND(0.02)	0.050	ND(0.01)	0.105	ND(0.01)	0.110	0.018
	10/19/99	0.023	ND(0.0025)	*0.002*	ND(0.005)	0.080	0.003	0.160	ND(0.0025)	0.119	0.040
MW-18	04/03/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.017	ND(0.005)	0.093	ND(0.005)	0.034	0.071
	08/01/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.024	ND(0.005)	0.170	ND(0.005)	0.039	0.087
	10/18/95	*0.003*	ND(0.005)	ND(0.005)	ND(0.005)	0.018	ND(0.005)	0.150	ND(0.005)	0.042	0.130
	01/11/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.017	ND(0.005)	0.130	ND(0.005)	0.037	0.097
	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.016	ND(0.005)	0.170	ND(0.005)	0.034	0.120
dup.	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.018	ND(0.005)	0.200	ND(0.005)	0.043	0.110
	07/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.170	ND(0.005)	0.043	0.120
	10/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.020	ND(0.005)	0.190	ND(0.005)	0.042	0.120
	01/24/97	0.003	ND(0.001)	ND(0.001)	ND(0.002)	0.024	*0.001*	0.180	0.002	0.047	0.097
	04/09/97	0.003	ND(0.001)	ND(0.001)	ND(0.002)	0.022	*0.001*	0.155	0.002	0.044	0.116
	07/30/97	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.020	ND(0.002)	0.140	*0.001*	0.044	0.121
	10/17/97	*0.002*	ND(0.01)	ND(0.01)	ND(0.02)	0.028	ND(0.01)	0.157	ND(0.01)	0.044	0.071
	01/07/98	*0.002*	ND(0.01)	ND(0.01)	ND(0.02)	0.029	ND(0.01)	0.163	ND(0.01)	0.054	0.133
	04/15/98	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.029	ND(0.01)	0.155	ND(0.01)	0.053	0.145
	07/18/98	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.030	ND(0.01)	0.146	ND(0.01)	0.052	0.151
	10/28/98	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.028	ND(0.01)	0.142	ND(0.01)	0.052	0.149
	02/09/99	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.01)	0.030	ND(0.005)	0.143	ND(0.005)	0.052	0.148
	04/22/99	*0.002*	ND(0.0025)	ND(0.0025)	ND(0.005)	0.031	ND(0.0025)	0.135	ND(0.0025)	0.045	0.121
	07/14/99	*0.002*	ND(0.0025)	ND(0.0025)	ND(0.005)	0.028	ND(0.0025)	0.127	ND(0.0025)	0.042	0.120
	10/19/99	*0.002*	ND(0.0025)	0.002	ND(0.005)	0.034	ND(0.0025)	0.149	ND(0.0025)	0.049	0.128
MW-19	04/03/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.011	ND(0.005)	0.150	ND(0.005)	ND(0.005)	0.110
	08/01/95	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.014	ND(0.005)	0.170	ND(0.005)	ND(0.005)	0.140
	10/18/95	*0.002*	ND(0.005)	ND(0.005)	ND(0.005)	0.010	ND(0.005)	0.170	ND(0.005)	*0.004*	0.150
	01/11/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.010	ND(0.005)	0.110	ND(0.005)	ND(0.005)	0.100
	04/13/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.150	ND(0.005)	ND(0.005)	0.100
	07/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.009	ND(0.005)	0.150	ND(0.005)	ND(0.005)	0.110
	10/22/96	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.008	ND(0.005)	0.130	ND(0.005)	ND(0.005)	0.094
	01/24/97	0.001	ND(0.001)	ND(0.001)	ND(0.002)	0.009	ND(0.001)	0.122	*0.001*	0.003	0.093
	04/09/97	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.010	ND(0.001)	0.116	*0.001*	0.004	0.087
	07/30/97	0.002	ND(0.002)	ND(0.002)	ND(0.004)	0.009	ND(0.002)	0.116	ND(0.002)	0.005	0.096
	10/17/97	*0.003*	ND(0.01)	ND(0.01)	ND(0.02)	0.010	ND(0.01)	0.124	ND(0.01)	*0.007*	0.066
	10/28/98	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.02)	0.017	ND(0.01)	0.167	ND(0.01)	*0.009*	0.150
	04/22/99	0.003	ND(0.0025)	ND(0.0025)	ND(0.005)	0.023	ND(0.0025)	0.212	ND(0.0025)	0.009	0.182
	10/19/99	*0.004*	ND(0.005)	ND(0.005)	ND(0.01)	0.020	*ND(0.005)*	0.236	*ND(0.005)*	*0.010*	0.203
MW-20	11/20/96	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(0.001)	ND(0.001)
	01/24/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	04/09/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	07/30/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/17/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	01/07/98	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(0.001)	ND(0.001)
	04/15/98	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(0.001)	ND(0.001)
	07/18/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/28/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	02/09/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	04/22/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-20 Cont.	07/13/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/19/99	ND(0.001)	ND(0.001)	0.002	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MW-21	11/20/96	0.002	ND(0.001)	ND(0.001)	ND(0.001)	0.002	ND(0.001)	0.012	ND(0.001)	0.003	0.006
	01/24/97	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.003	ND(0.001)	0.019	ND(0.001)	0.004	0.006
	03/04/97	0.002	ND(0.001)	ND(0.001)	ND(0.002)	0.004	ND(0.001)	0.025	ND(0.001)	0.007	0.011
	04/09/97	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	0.003	ND(0.002)	0.021	ND(0.002)	0.005	0.008
	07/30/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	*0.001*	ND(0.002)	0.011	ND(0.002)	0.003	0.007
	10/17/97	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	*0.001*	ND(0.002)	0.007	ND(0.002)	*0.001*	0.004
	01/07/98	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	0.002	ND(0.002)	0.021	ND(0.002)	0.003	0.005
	04/15/98	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	0.002	ND(0.002)	0.028	ND(0.002)	0.003	0.006
	07/18/98	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	*0.002*	ND(0.002)	0.022	ND(0.002)	0.002	0.005
	10/28/98	*0.001*	ND(0.002)	ND(0.002)	ND(0.004)	*0.001*	ND(0.002)	0.015	ND(0.002)	0.001	0.004
	02/09/99	*0.001*	ND(0.001)	ND(0.001)	ND(0.002)	0.002	ND(0.001)	0.031	ND(0.001)	0.002	0.005
	04/22/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.001	ND(0.001)	0.025	ND(0.001)	0.001	0.003
	07/14/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	0.009	ND(0.001)	ND(0.001)	0.002
	10/19/99	ND(0.001)	ND(0.001)	0.002	ND(0.002)	ND(0.001)	ND(0.001)	0.006	ND(0.001)	ND(0.001)	0.001
MW-22	11/20/96	0.014	ND(0.001)	ND(0.001)	ND(0.001)	0.010	ND(0.001)	0.063	ND(0.001)	0.012	0.053
	01/24/97	0.010	ND(0.001)	ND(0.001)	ND(0.002)	0.009	ND(0.001)	0.065	ND(0.001)	0.013	0.050
dup.	01/24/97	0.011	ND(0.001)	ND(0.001)	ND(0.002)	0.011	ND(0.001)	0.099	ND(0.001)	0.013	0.065
	04/09/97	0.013	ND(0.001)	ND(0.001)	ND(0.002)	0.014	*0.001*	0.084	ND(0.001)	0.021	0.080
	07/30/97	0.014	ND(0.002)	ND(0.002)	ND(0.004)	0.012	ND(0.002)	0.092	ND(0.002)	0.024	0.104
	10/17/97	0.016	ND(0.005)	ND(0.005)	ND(0.01)	0.014	ND(0.005)	0.107	ND(0.005)	0.028	0.117
	10/28/98	0.016	ND(0.01)	ND(0.01)	ND(0.02)	0.017	ND(0.01)	0.129	ND(0.01)	0.037	0.150
	04/22/99	0.017	ND(0.0025)	ND(0.0025)	ND(0.005)	0.024	ND(0.0025)	0.185	ND(0.0025)	0.053	0.184
	10/19/99	0.019	ND(0.005)	*0.002*	ND(0.01)	0.026	ND(0.005)	0.200	ND(0.005)	0.056	0.207
MW-23	11/20/96	ND(0.001)	ND(0.001)	*0.001*	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	01/24/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	03/04/97	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(0.001)	ND(0.001)
	04/09/97	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
	07/30/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/17/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/28/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	04/22/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/19/99	ND(0.001)	ND(0.001)	0.002	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MW-24	11/20/96	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(0.001)	ND(0.001)
	01/24/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	04/09/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	07/30/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/17/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/28/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	04/22/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/19/99	ND(0.001)	ND(0.001)	0.003	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MW-25	03/04/97	0.021	ND(0.001)	ND(0.001)	ND(0.001)	0.014	0.001	0.035	ND(0.001)	ND(0.001)	0.030
	04/09/97	0.015	ND(0.001)	ND(0.001)	ND(0.002)	0.015	*0.001*	0.035	ND(0.001)	0.006	0.020
dup.	04/09/97	0.014	ND(0.001)	ND(0.001)	ND(0.002)	0.015	*0.001*	0.034	ND(0.001)	0.005	0.019
	07/30/97	0.023	ND(0.002)	ND(0.002)	ND(0.004)	0.011	*0.001*	0.031	ND(0.002)	0.005	0.035

TABLE 2. SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND-WATER SAMPLES, SCHLUMBERGER 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)	TCE (mg/L)	PCE (mg/L)
MW-25 Cont.	10/17/97	0.026	ND(0.002)	ND(0.002)	ND(0.004)	0.011	0.001	0.027	ND(0.002)	0.004	0.035
dup.	10/17/97	0.026	ND(0.002)	ND(0.002)	ND(0.004)	0.013	0.001	0.028	ND(0.002)	0.004	0.028
	01/07/98	0.027	ND(0.002)	ND(0.002)	ND(0.004)	0.014	0.001	0.030	ND(0.002)	0.004	0.033
	04/15/98	0.025	ND(0.002)	ND(0.002)	ND(0.004)	0.013	ND(0.002)	0.028	ND(0.002)	0.004	0.034
	07/18/98	0.022	ND(0.002)	ND(0.002)	ND(0.004)	0.012	ND(0.002)	0.024	ND(0.002)	0.004	0.026
	10/28/98	0.030	ND(0.002)	ND(0.002)	ND(0.004)	0.012	ND(0.002)	0.030	ND(0.002)	0.005	0.038
	02/09/99	0.027	ND(0.001)	ND(0.001)	ND(0.002)	0.013	ND(0.001)	0.031	ND(0.001)	0.003	0.039
	04/22/99	0.030	ND(0.001)	ND(0.001)	ND(0.002)	0.013	ND(0.001)	0.031	ND(0.001)	0.002	0.032
	07/14/99	0.022	ND(0.001)	ND(0.001)	ND(0.002)	0.012	ND(0.001)	0.027	ND(0.001)	0.004	0.028
	10/19/99	0.025	ND(0.001)	0.002	ND(0.002)	0.012	ND(0.001)	0.027	ND(0.001)	0.004	0.027
MW-26	03/04/97	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(0.001)	ND(0.001)
dup.	03/04/97	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(0.001)	ND(0.001)
	04/09/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	07/30/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.001	ND(0.001)	0.004	ND(0.001)	ND(0.001)	0.002
	10/17/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.001	ND(0.001)	0.004	ND(0.001)	0.001	0.004
	01/07/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.001	ND(0.001)	0.004	ND(0.001)	0.001	0.004
	04/15/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.002	ND(0.001)	0.006	ND(0.001)	0.001	0.006
	07/18/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.004	ND(0.001)	0.013	ND(0.001)	0.002	0.011
	10/27/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.004	ND(0.001)	0.011	ND(0.001)	0.002	0.013
dup.	10/27/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	0.003	ND(0.002)	0.010	ND(0.002)	0.002	0.014
	02/09/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	0.003	ND(0.0005)	0.008	ND(0.0005)	0.002	0.011
	04/22/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.003	ND(0.001)	0.010	ND(0.001)	0.002	0.010
	07/13/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	0.004	ND(0.001)	0.013	ND(0.001)	0.002	0.014
	10/19/99	0.001	ND(0.001)	0.003	ND(0.002)	0.006	ND(0.001)	0.018	ND(0.001)	0.003	0.018
MW-27	03/04/97	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(0.001)	ND(0.001)
	04/09/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	07/30/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/17/97	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	01/07/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
	04/15/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	07/18/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/27/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	02/09/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	04/22/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	07/13/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/19/99	ND(0.001)	ND(0.001)	0.003	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MW-28	04/15/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	07/18/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/27/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	02/09/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
	04/22/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	07/13/99	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	10/19/99	ND(0.001)	ND(0.001)	0.002	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
MW-29	04/15/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
	07/18/98	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.004)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
	10/27/98	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.002)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
	02/09/99	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.001)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)

FIGURES

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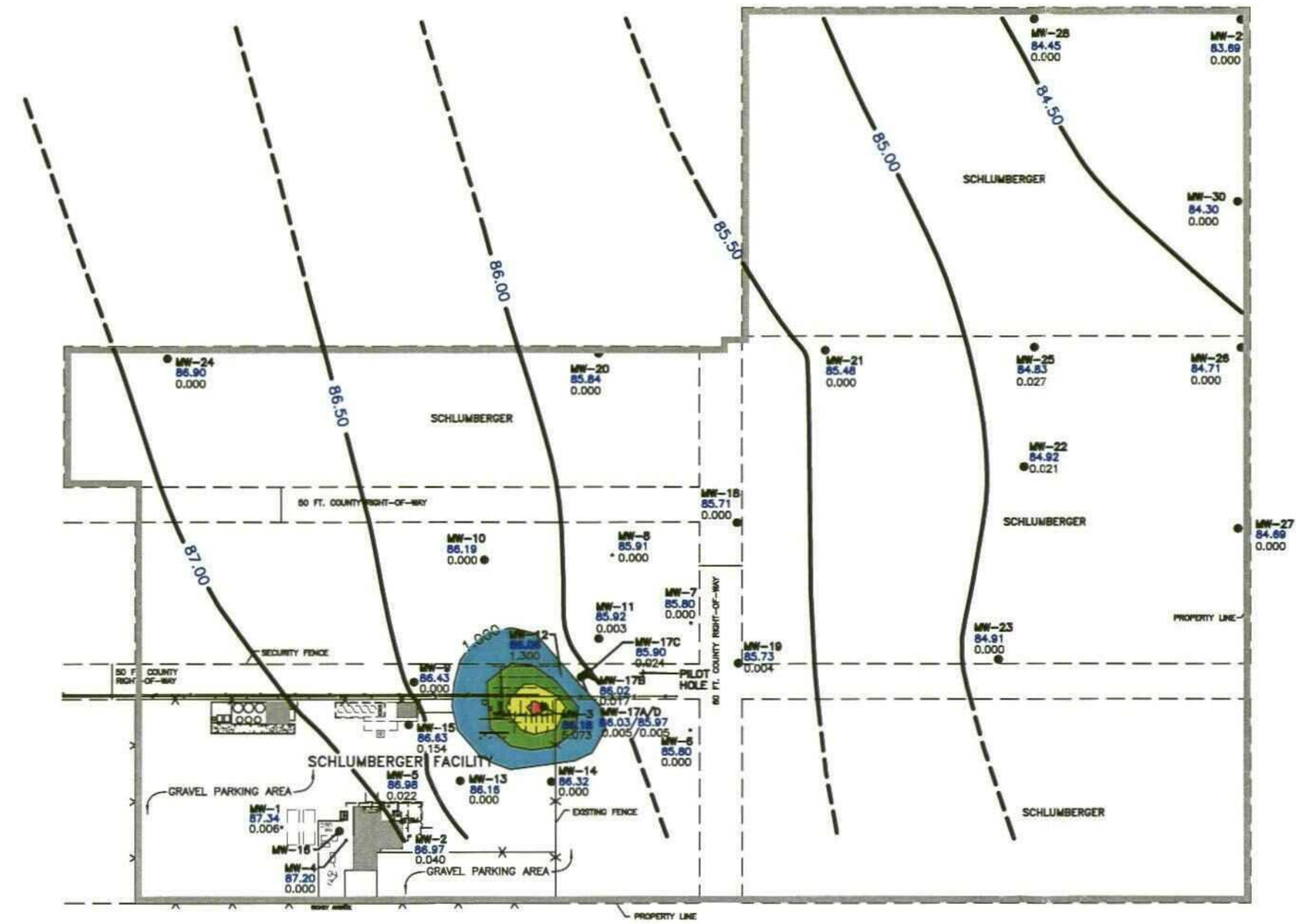

EXPLANATION

- MW-12 / 85.33 / 1.895 — WWC MONITORING WELL LOCATION AND IDENTIFICATION / GROUND-WATER ELEVATION / ISOCONCENTRATION FOR TOTAL BTEX
- MW-6 / 85.07 / ND — REED AND ASSOCIATES MONITORING WELL LOCATION AND IDENTIFICATION / GROUND-WATER ELEVATION / ISOCONCENTRATION FOR TOTAL BTEX
- TBM — TEMPORARY BENCH MARK
- AIR PIPING
- SVE EXTRACTION WELL

ISOCONCENTRATION FOR TOTAL BTEX

- 4.000
- 3.000
- 2.000
- 1.000

-86.00- POTENTIOMETRIC SURFACE CONTOUR

0 200 FT.

SCALE

BASE MAP MODIFIED FROM REED & ASSOCIATES

FIGURE 1

POTENTIOMETRIC SURFACE AND ISOCONCENTRATION MAP FOR TOTAL BTEX (10/20/99)

SCHLUMBERGER OILFIELD SERVICES
ARTESIA, NEW MEXICO

WWC Engineering

Civil Environmental Mining Water Resources

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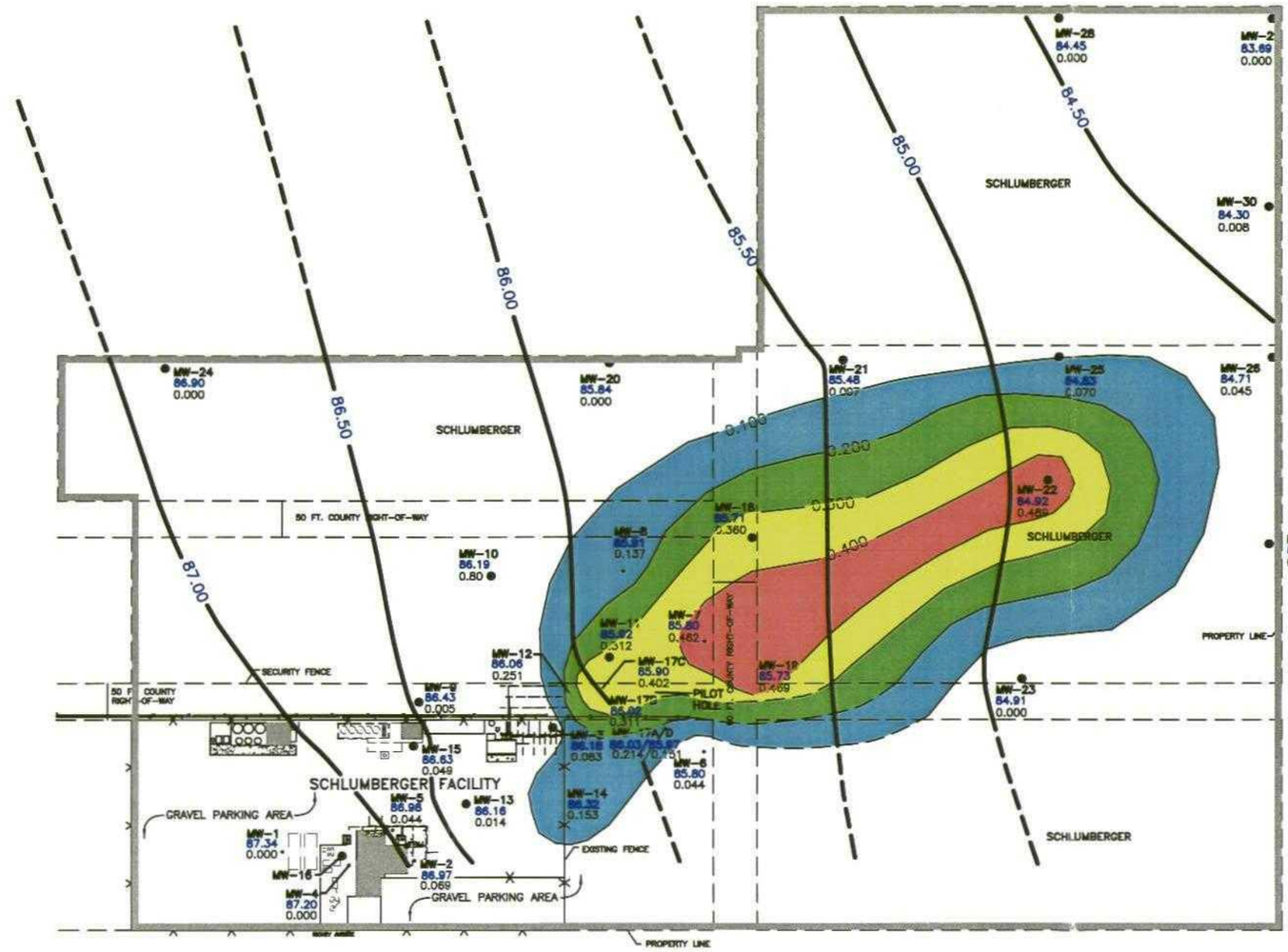

EXPLANATION

- MW-12 / 85.33 / 1.895 — WWC MONITORING WELL LOCATION AND IDENTIFICATION; GROUND-WATER ELEVATION; ISOCONCENTRATION FOR TOTAL HALOCARBONS
- MW-6 / 85.07 / ND — REED AND ASSOCIATES MONITORING WELL LOCATION AND IDENTIFICATION; GROUND-WATER ELEVATION; ISOCONCENTRATION FOR TOTAL HALOCARBONS
- TBM — TEMPORARY BENCH MARK
- AIR PIPING
- SVE EXTRACTION WELL

ISOCONCENTRATION FOR TOTAL HALOCARBONS

- 0.400
- 0.300
- 0.200
- 0.100

-86.00- POTENTIOMETRIC SURFACE CONTOUR

0 200 FT.

SCALE

BASE MAP MODIFIED FROM REED & ASSOCIATES

FIGURE 2

POTENTIOMETRIC SURFACE AND ISOCONCENTRATION MAP FOR TOTAL HALOCARBONS (10/20/99)

SCHLUMBERGER OILFIELD SERVICES
ARTESIA, NEW MEXICO

WWC Engineering

Civil Environmental Mining Water Resources

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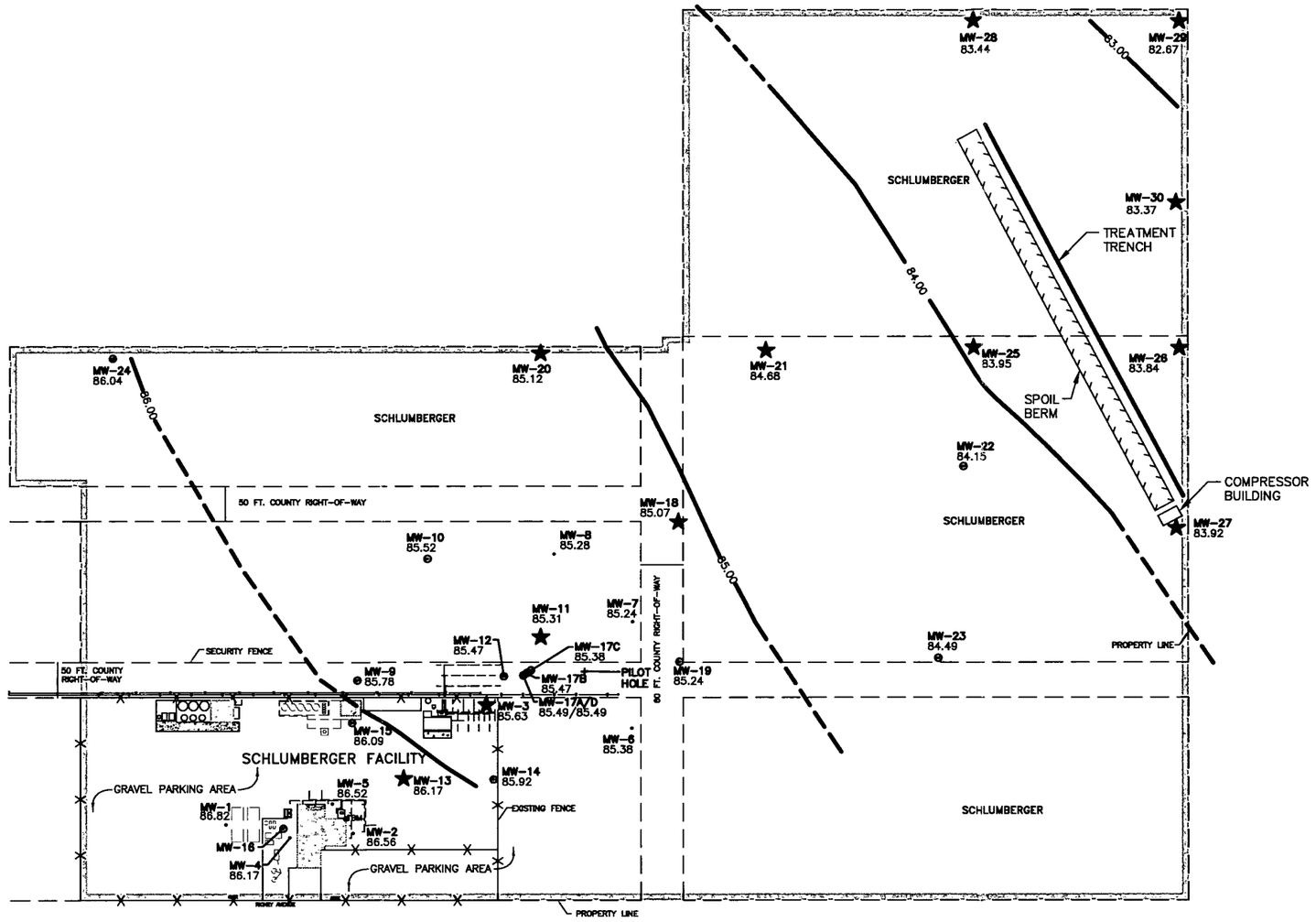

EXPLANATION

- MW-12 85.51 — WWC MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE
- MW-6 85.33 — REED AND ASSOCIATES MONITORING WELL LOCATION, IDENTIFICATION, AND POTENTIOMETRIC SURFACE
- ★ — MONITORING WELLS TO BE SAMPLED QUARTERLY
- 86.00 — POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- TBM — TEMPORARY BENCH MARK
- ---- — AIR PIPING
- · — SVE EXTRACTION WELL

0 200 FT.

SCALE

BASE MAP MODIFIED FROM REED & ASSOCIATES

FIGURE 3

SITE MAP WITH
POTENTIOMETRIC SURFACE
(04/18/00)

SCHLUMBERGER OILFIELD SERVICES
ARTESIA, NEW MEXICO

WWC Engineering

Civil Environmental Mining Water Resources

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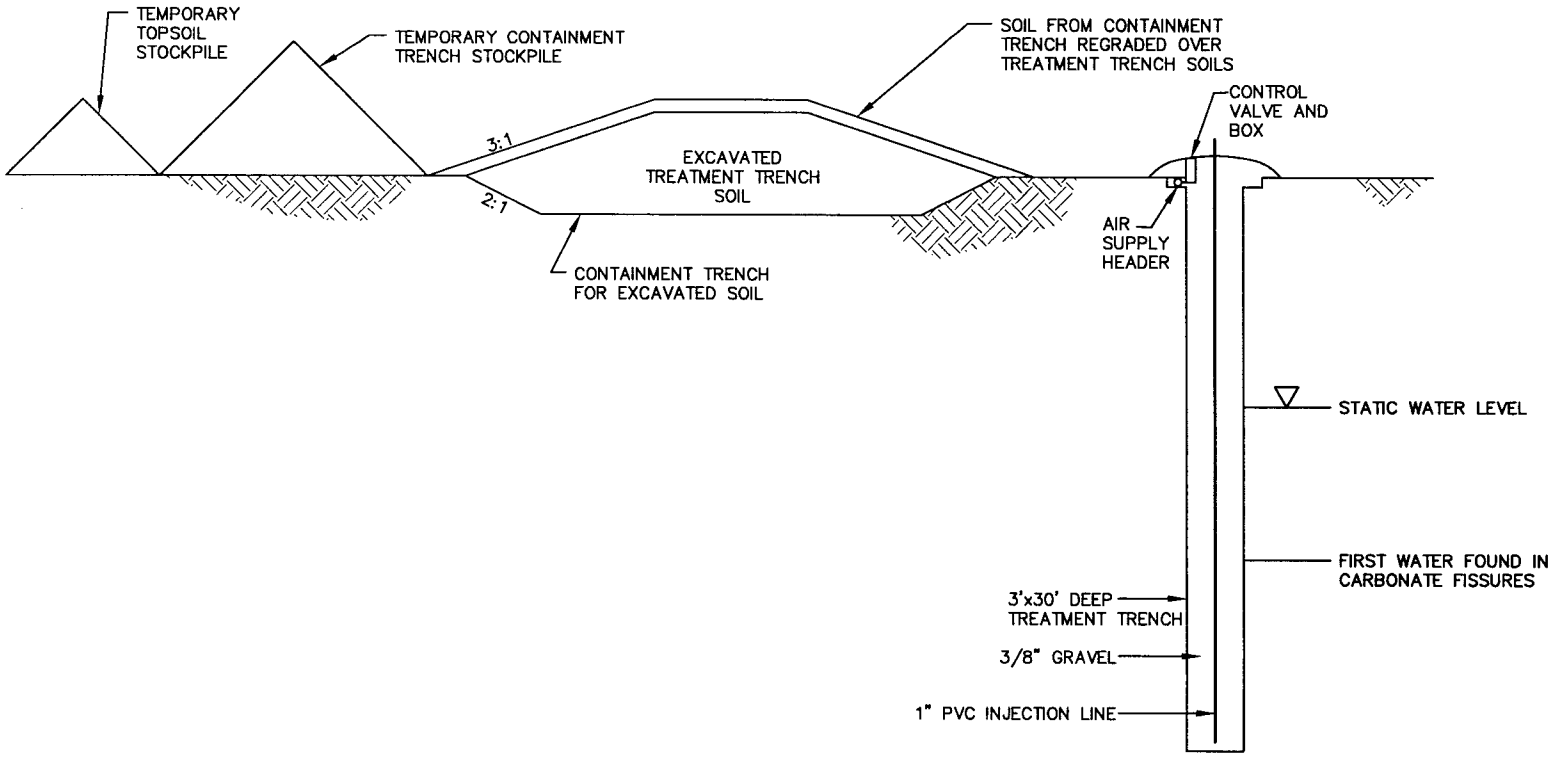


NOTE:

STRIP 6" OF TOPSOIL FROM DISTURBED AREA AFTER CONSTRUCTION. SPREAD TOPSOIL AND SEED DISTURBED AREAS.

FIGURE 4

GROUND WATER AERATION TRENCH CONSTRUCTION DETAILS

SCHLUMBERGER OILFIELD SERVICES
ARTESIA, NEW MEXICO

WWC Engineering
Civil Environmental Mining Water Resources
A DIVISION OF WESTERN WATER CONSULTANTS, INC.

APPENDIX A

WELL LOGS

MONITORING WELL MW-25

LOCATION: Dowell Schlumberger, Artesia, New Mexico
North of MW-22
T17S, R26E, Sec 4, SE 1/4, SW 1/4
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Scarbourgh Drilling (Lane Scarbourgh)
STATE ENGINEER NO: NA
INSTALLATION DATE: March 3, 1997

WELL OWNER: Dowell Schlumberger Inc. (JN 90-125)
DRILLING METHOD: Air Rotary, 5.0" OD
CASING: 2" Dia. Flush Joint Sch. 40 PVC
SCREEN: Slotted Casing; 0.020 Inch Slots
FILTER PACK: 8/16 Mesh Silica Sand
WATER TABLE ELEVATION: NA
(Reference Datum: Arbitrary = 100.00 feet)

DESCRIPTIONS

Depth(Ft)

0 — SILTY CLAY: pale brn-pale yellowish brn (5YR 5/2-10YR 6/2), no odor, 0 ppm PID

5 — SILTY CLAY: pinkish gry 5YR 8/1 to very pale orange 10YR 8/2, minor clay, minor gravel, calcareous, damp-slightly damp, no HC odor or staining, 0 ppm PID

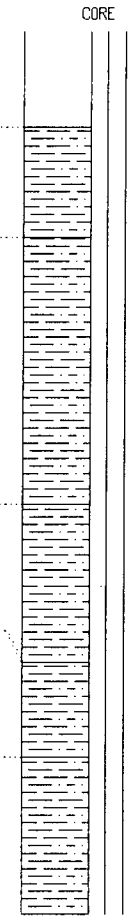
10 — SILTY CLAY: pinkish gry, silty, calcareous, damp, no HC staining or odor, 0 ppm PID

15 — SILTY CLAY: lt brn (5YR 5/6), increase in clay content, very damp-slightly moist, balls up, minor gravel, no HC staining or odor, 0 ppm PID

20 — SILTY CLAY: lt brn, gravel to 1" dia., calcareous, saturated, sticky, no odor or staining 0 ppm PID

25

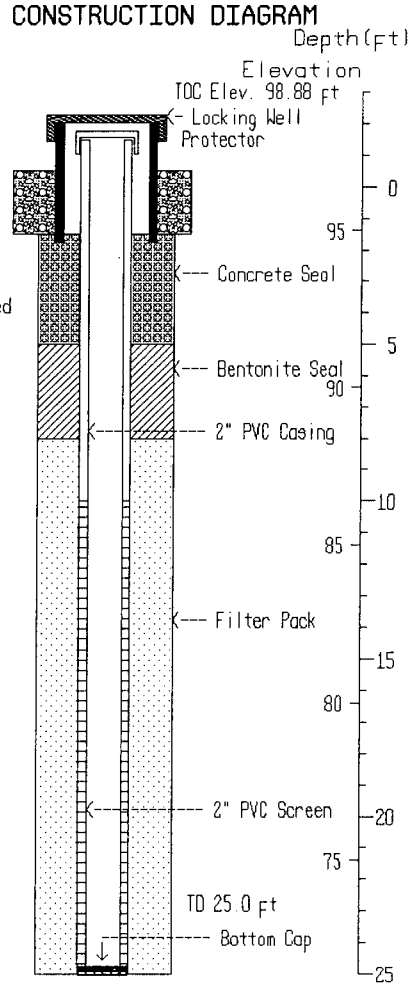
LITHOLOGY



Laboratory

no soil samples collected

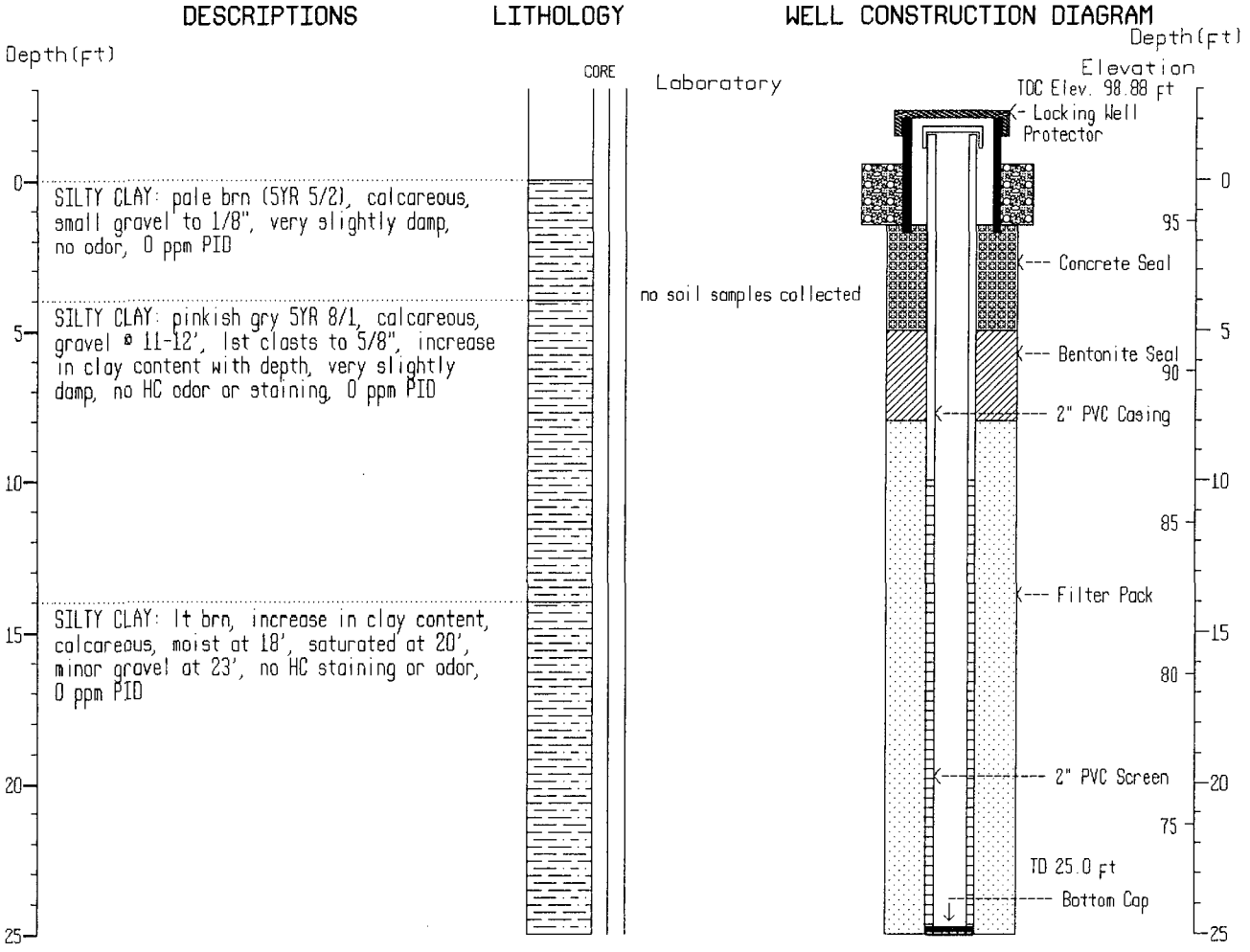
WELL CONSTRUCTION DIAGRAM



MONITORING WELL MW-26

LOCATION: Dowell Schlumberger, Artesia, New Mexico
Very northeast corner of property
T17S, R26E, Sec 4, SE 1/4, SW 1/4
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Scarbourgh Drilling (Lane Scarbourgh)
STATE ENGINEER NO: NA
INSTALLATION DATE: March 3, 1997

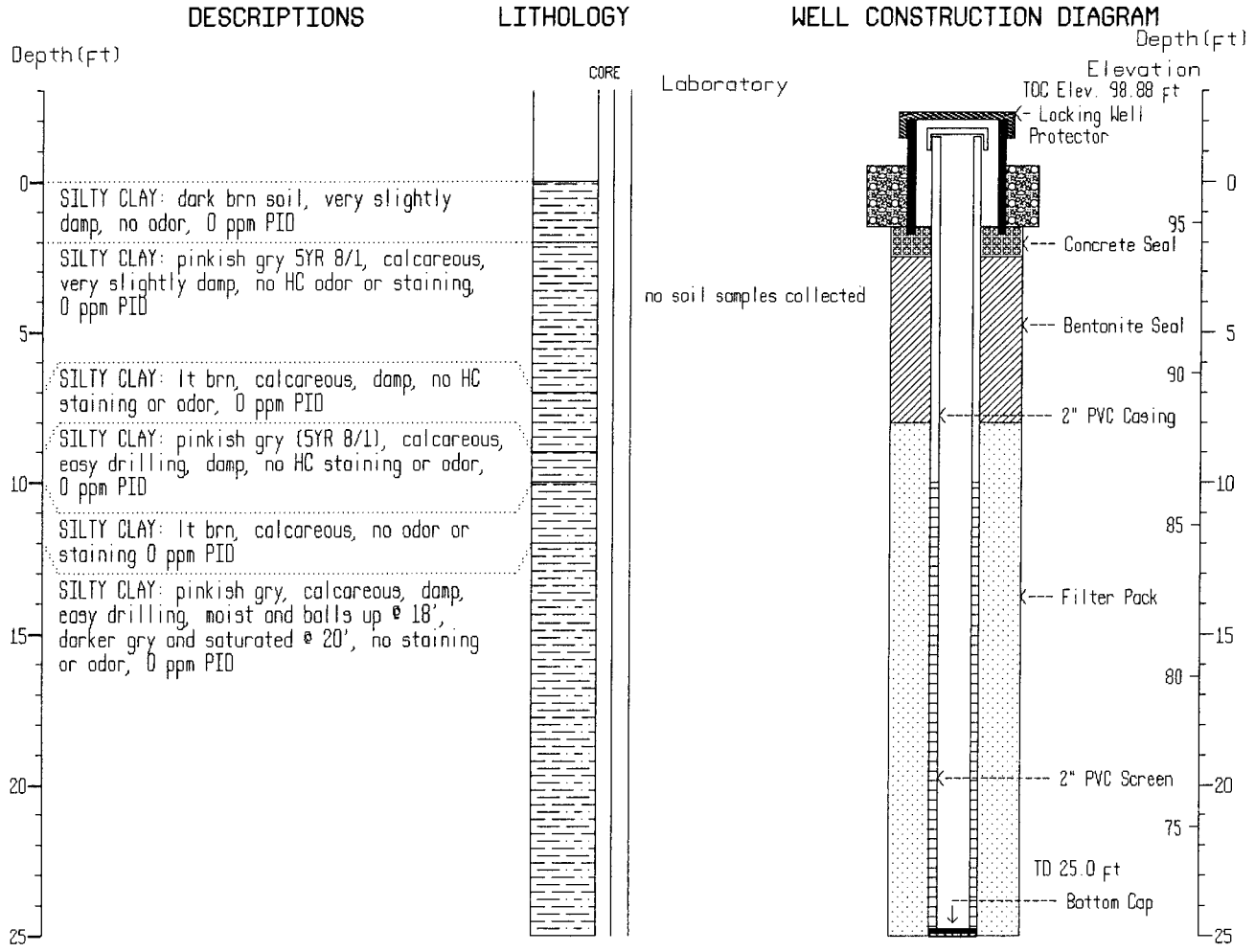
WELL OWNER: Dowell Schlumberger Inc. (JN 90-125)
DRILLING METHOD: Air Rotary, 5.0" OD
CASING: 2" Dia. Flush Joint Sch. 40 PVC
SCREEN: Slotted Casing; 0.020 Inch Slots
FILTER PACK: 8/16 Mesh Silica Sand
WATER TABLE ELEVATION: NA
(Reference Datum: Arbitrary = 100.00 feet)



MONITORING WELL MW-27

LOCATION: Dowell Schlumberger, Artesia, New Mexico
Along the east property line near the northeast corner
T17S, R26E, Sec 4, SE 1/4, SW 1/4
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Scarbourgh Drilling (Lane Scarbourgh)
STATE ENGINEER NO: NA
INSTALLATION DATE: March 3, 1997

WELL OWNER: Dowell Schlumberger Inc. (JN 90-125)
DRILLING METHOD: Air Rotary, 5.0" OD
CASING: 2" Dia. Flush Joint Sch. 40 PVC
SCREEN: Slotted Casing; 0.020 Inch Slots
FILTER PACK: 8/16 Mesh Silica Sand
WATER TABLE ELEVATION: NA
(Reference Datum: Arbitrary = 100.00 feet)



MONITORING WELL MW-28

LOCATION: Dowell Schlumberger, Artesia, New Mexico
Along property line fence north of MW-25
T17S, R26E, Sec 9, NE 1/4, SW 1/4
LOG: Western Water Consultants Inc. (Kevin Mattson)
DRILLER: Scarbourgh Drilling (Lane Scarbourgh)
STATE ENGINEER NO: NA
INSTALLATION DATE: April 14, 1998

WELL OWNER: Dowell Schlumberger Inc. (JN 90-125)
DRILLING METHOD: Air Rotary, 5 1/4" OD
CASING: 2" Dia. Flush Joint Sch. 40 PVC
SCREEN: Slotted Casing; 0.020 Inch Slots
FILTER PACK: 8/16 Mesh Silica Sand
WATER TABLE ELEVATION: NA
(Reference Datum: Arbitrary = 100.00 feet)

DESCRIPTIONS

Depth(ft)

0 — SILTY CLAY: dk brn soil, no odor, 0 ppm PID

SILTY CLAY: lt reddish brn, very slightly damp, no odor or staining, 0 ppm PID

5 — SILTY CLAY: lt pinkish brn, calcareous, gypsum crystals, slightly damp, no HC odor or staining, 0 ppm PID

10 — SILTY CLAY: reddish brn, calcareous, very slightly damp, no HC staining or odor, 0 ppm PID

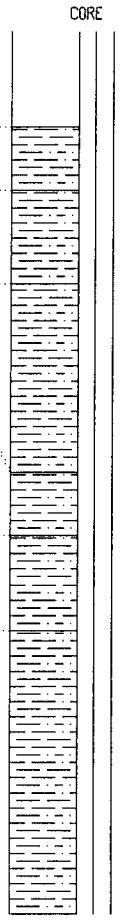
SILTY CLAY: lt gry, calcareous, increase in clay content, dry- very slightly damp, no HC staining or odor, 0 ppm PID

15 — SILTY CLAY: reddish brn-orange brn, carbonate clasts, balls up at 17 ft., no HC odor or staining, 0 ppm PID

20

25

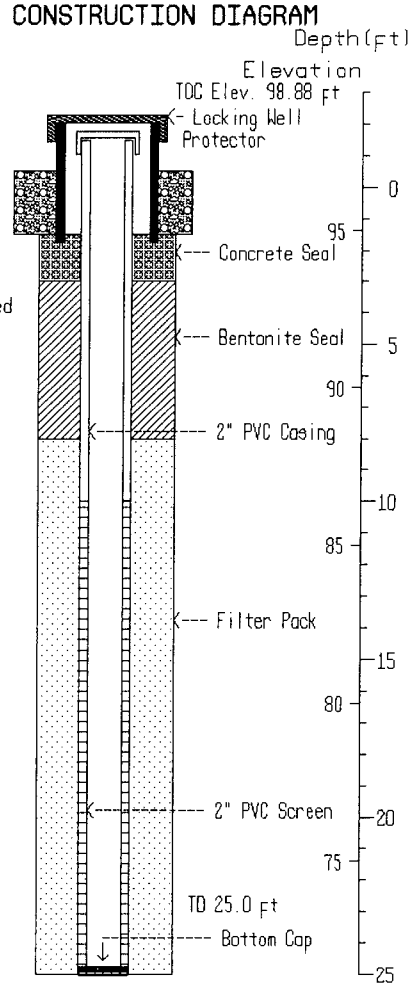
LITHOLOGY



Laboratory

no soil samples collected

WELL CONSTRUCTION DIAGRAM



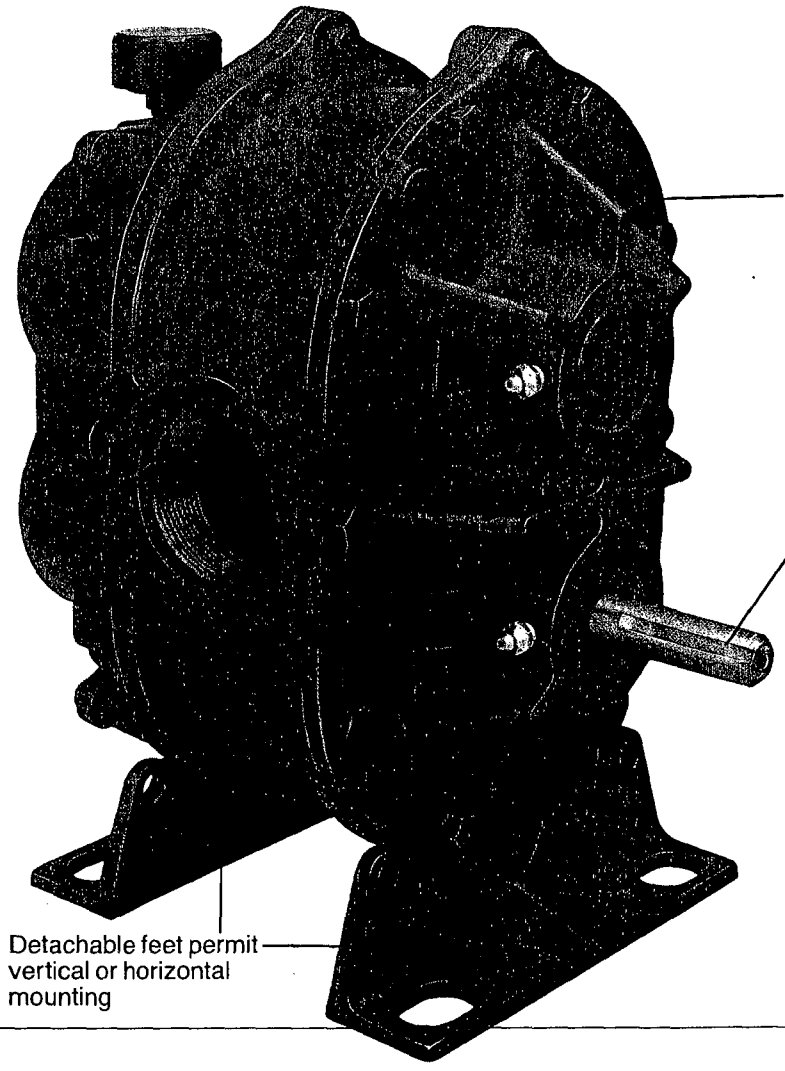
APPENDIX B

BLOWER DATA

Universal RAI® Rotary Positive Blowers

ROOTS

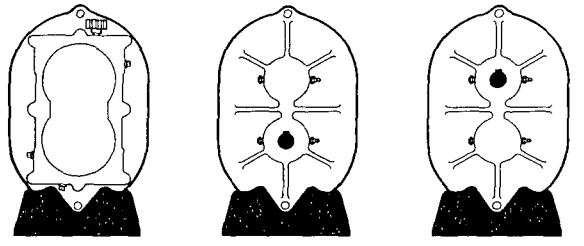
Roots Universal RAI® Blowers



Sixteen frame sizes offer a wide range of performance specifications

Drive shaft can be located in any of several positions; cylindrical roller bearings give extended service life

Detachable feet permit vertical or horizontal mounting



VERTICAL GEAR END | DRIVE SHAFT ON BOTTOM | DRIVE SHAFT ON TOP

VERTICAL MOUNTING
(Horizontal air flow)

Low cost

Because you can install the Roots Universal RAI blower so many different ways, we don't have to build so many different models. That means savings we can pass along to you. This versatile Roots blower can actually cost less than ordinary competitive units, especially when you consider the lower freight costs from our centralized plant to most states.

Fast delivery

Roots Universal RAI blowers give you on-time delivery because we ship all new orders out of stock with faster response than ever before. You can schedule your production—anticipate your costs—reduce your inventory—meet your customers' deadlines.

Longer warranty

Our competitors warrant their blowers for one year or less, starting the day of receipt. Roots protects you and your customers with an uncontested warranty* that guarantees we'll repair or replace any unit that malfunctions for any reason during the first 18 months of use. And, we'll do it fast. Replacement units are shipped quickly from inventories at the Roots plant, or the nearest distributor location.

* Covers frame sizes 22 through 615

Nationwide service

Roots Universal RAI blowers are backed by the industry's largest direct sales and distributor service network, with approximately 100 sales and distributor offices throughout the United States and Canada.

Versatile performance

The Roots Universal RAI blower is available in 16 frame sizes, offering 1 to 15 PSIG of pressure, 16" Hg of vacuum, and flows from 2 to 2070 CFM. You can mount this versatile unit any way you want, vertically or horizontally. You can rotate the drive shaft in either direction. You can fit the Universal RAI right into most O.E.M. packages as original equipment, or as an economical replacement blower.

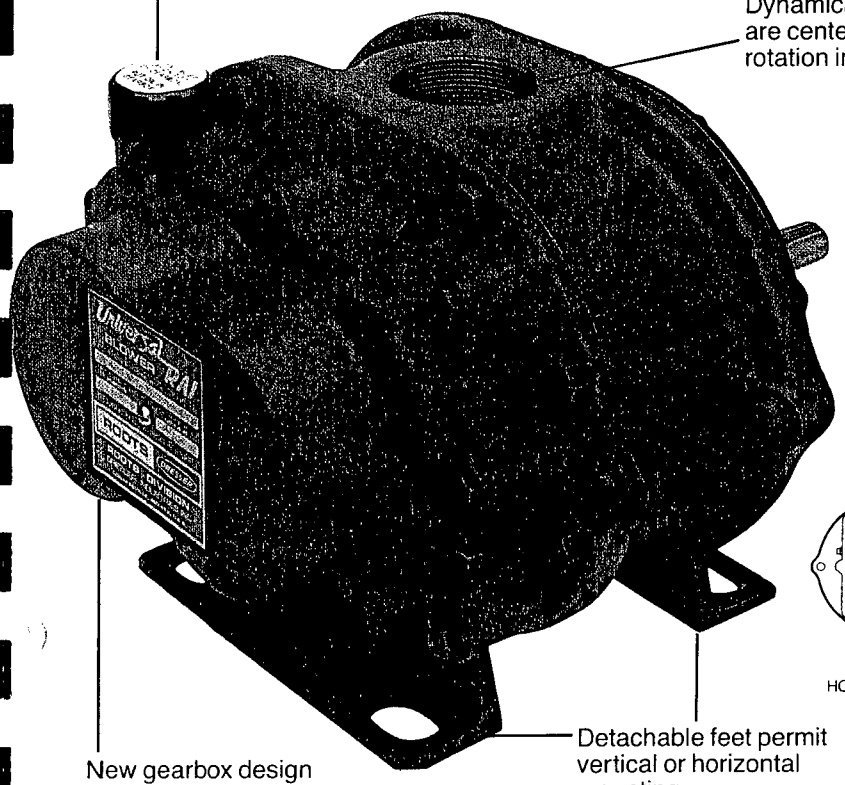
Customer satisfaction

When your product or system includes a real Roots blower (instead of a so-called Roots-**type** blower), your customers know they're getting the most job-proven blower in the world. There's confident satisfaction in using the **original**, the one others imitate. The Roots name reflects and reinforces the quality you build into your equipment.

Something for everyone in today's most economical and versatile O.E.M./Replacement blower

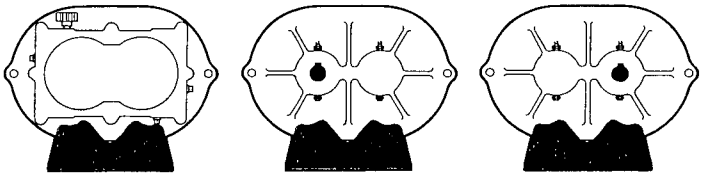
Gearbox breather and plugs are interchangeable for proper lubrication in any position

Dynamically balanced impellers are centertimed to permit rotation in either direction



New gearbox design for improved oil distribution

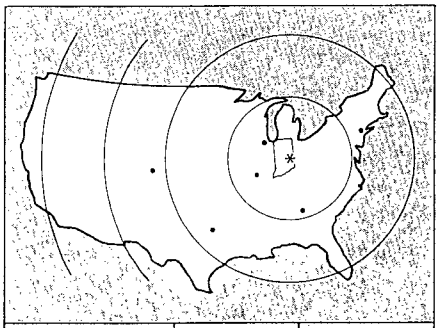
Detachable feet permit vertical or horizontal mounting



HORIZONTAL GEAR END | DRIVE SHAFT ON LEFT | DRIVE SHAFT ON RIGHT

HORIZONTAL MOUNTING
(Vertical air flow)

Lower freight charges

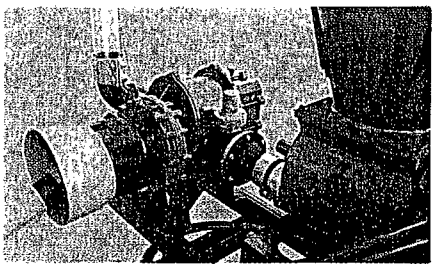


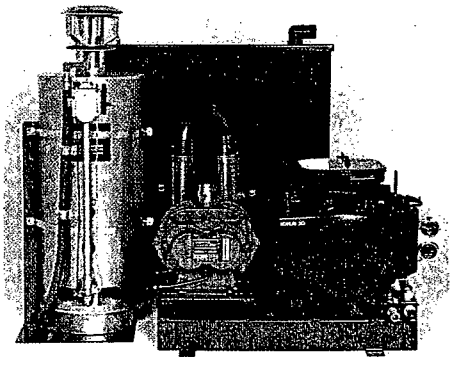
Connersville to:	400 pounds	1000 pounds
St. Louis	$60	$120
New York City	76	160
Atlanta	76	150
Chicago	60	110
Dallas	92	190
Denver	88	190
West Coast to:	**400 pounds**	**1000 pounds**
St. Louis	$128	$240
New York City	160	300
Atlanta	148	280
Chicago	132	250
Dallas	108	210
Denver	152	240

Typical estimated rates

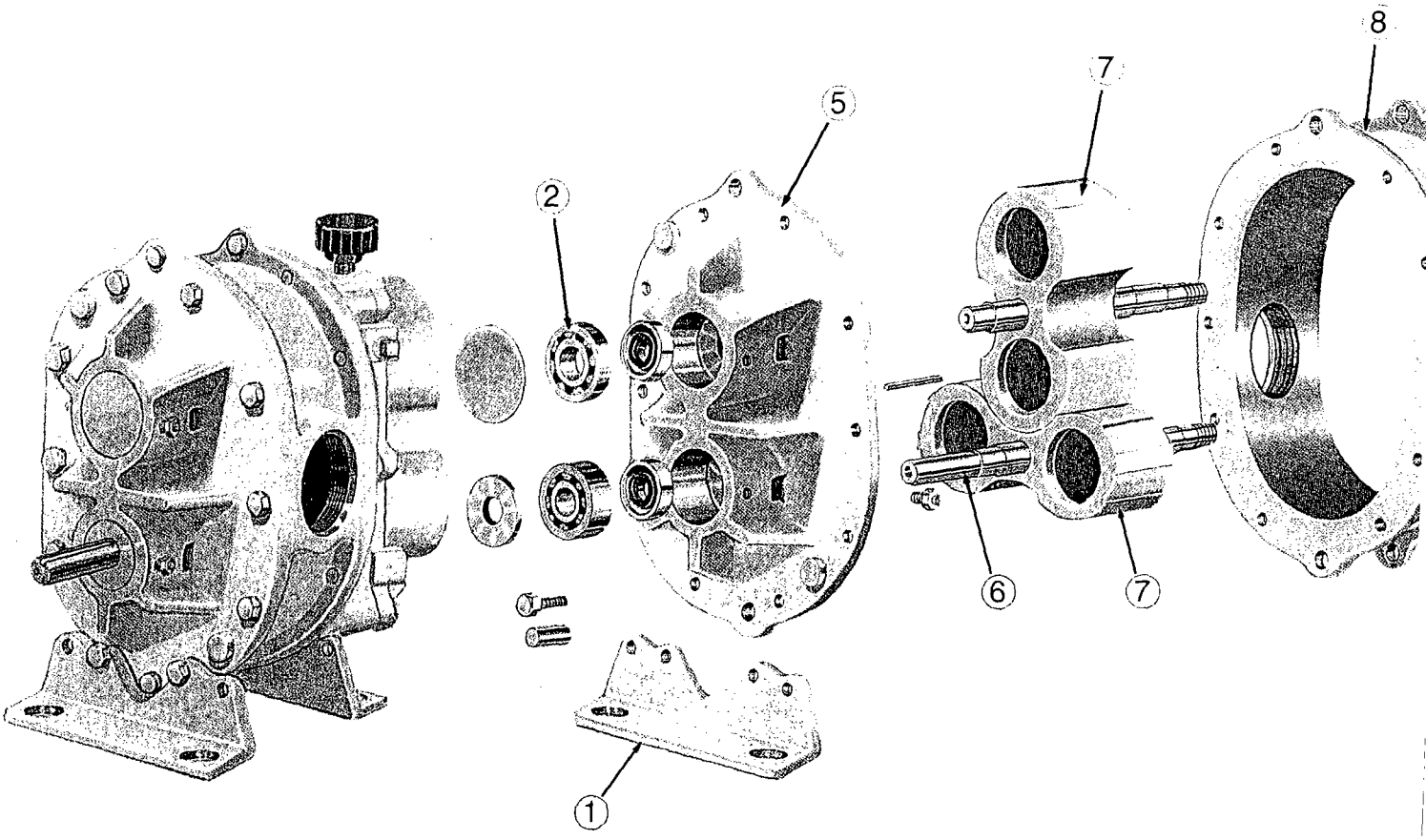
Fits most O.E.M. applications

As the photos illustrate, Roots Universal RAI blowers are used in applications from carpet cleaning to insulation blowing, mosquito fogging to sewage treatment, and bulk conveying of materials from powders and grain to plastic pellets. There are hundreds of other commercial, scientific and industrial applications. See the information on the following pages, and consult your Roots representative for further application assistance.





Construction features



1. Detachable Mounting Feet

- Permit vertical or horizontal installations for added versatility—can even be hung from overhead support
- Mounting holes interchangeable with most competitive Roots-type blowers to fit existing O.E.M. packages

2. Anti-friction Bearings

- Oversized cylindrical roller bearing at drive shaft designed to handle v-belt pull
- Oversized ball bearings at other headplate locations
- Engineered for long service life

3. Gears

- Precision machined, hardened alloy steel for long service life
- Secured to the shaft with taper mounting and locknut for accurate timing, ease of maintenance

4. Gear Case

- Large oil capacity
- Designed for improved oil distribution, longer gear life
- 2½" thru 6" sizes feature aluminum die casting
- 7" size is cast grey iron

5. Headplates

- Grey iron castings heavily ribbed for rigidity
- Mating surfaces precision machined
- Designed for vertical or horizontal mounting, and for four shaft arrangements—right hand, left hand, bottom hand and top hand

6. Shafts

- Forged alloy steel for strength
- Standard drive shaft diameters for off-the-shelf coupling and v-belt drive component selection

7. Impellers

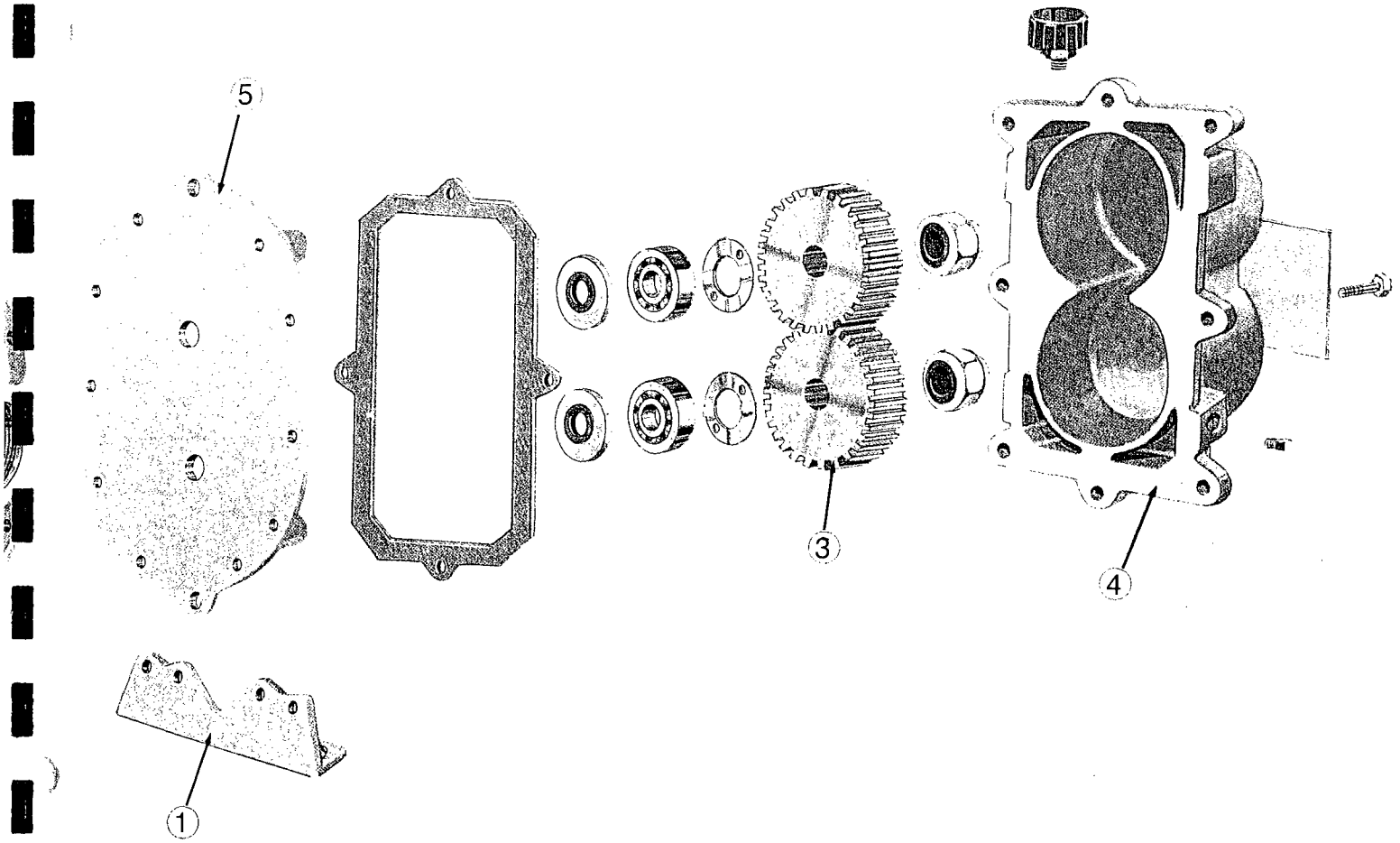
- Original Roots design
- High-strength grey iron castings
- Dynamically balanced for smooth operation
- Axial position maintained by thrust control arrangement
- Centertiming allows either clockwise or counterclockwise rotation

8. Cylinder

- One-piece precision machined grey iron casting for rigidity
- Integral piping connections for ease in installation

Lubrication

- Drive end grease, gear end oil splash
- Grease fittings and relief fittings engineered to prevent grease pressure build-up
- Lip-type seals at each bearing prevent lubricant from entering the air chamber

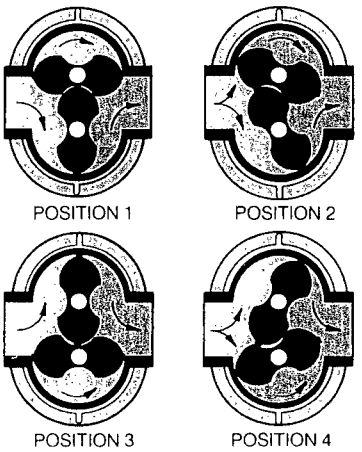


Assembly

Like all Roots' products, the Universal RAI is manufactured using advanced assembly techniques, assuring you of the quality you expect from Roots. The Universal RAI blowers are designed and built with close tolerances between the impeller, casing and headplates to minimize "back-slippage" of air and improve efficiency.

Operating Principle

The basic Roots rotary blower consists of two figure-eight shaped impellers mounted on parallel shafts. These shafts rotate in opposite directions within an elongated cylindrical housing. As each impeller lobe passes the inlet, the impeller traps a constant volume of air, carries it around the case, and discharges it at the outlet. This cycle repeats four times with every revolution of the drive shaft.



Application Principle

The Roots Universal RAI blower is a positive displacement machine which discharges a constant volume. Pressure is not developed inside the blower, but by the demand of the system. Discharge pressure, therefore, varies to meet the system's load conditions (pressure and flow). Volume is nearly constant with pressure fluctuations, except for a slight increase in slip as the pressure rises. Horsepower is proportional to pressure. The characteristics of the Universal RAI make it ideal for direct connected or v-belt driven low pressure and vacuum applications.

Performance Data

Pressure Tables

Frame Size	Speed RPM	1 PSI		2 PSI		4 PSI		5 PSI		6 PSI		7 PSI		8 PSI		9 PSI		10 PSI	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
22	1160	10	0.2	7	0.3														
	2600	33	0.4	30	0.6	25	1.0	23	1.1	22	1.3	20	1.5	19	1.7	17	1.9	16	2.0
	3560	49	0.6	45	0.8	41	1.3	39	1.6	37	1.8	35	2.1	34	2.3	32	2.6	31	2.8
	4580	65	0.7	62	1.1	57	1.7	55	2.0	53	2.3	52	2.6	50	3.0	49	3.3	47	3.6
24	1160	24	0.3	19	0.4	11	0.8												
	2600	70	0.6	65	1.0	57	1.7	54	2.0	51	2.4								
	3560	101	0.8	96	1.3	88	2.3	85	2.8	82	3.3								
	4580	134	1.1	128	1.7	121	3.0	118	3.6	115	4.2								
33	1160	55	0.5	48	0.8	39	1.4	35	1.7	31	2.1	28	2.4						
	1760	92	0.8	85	1.2	76	2.2	72	2.7	68	3.1	65	3.6	62	4.1	59	4.5	56	5.0
	2500	137	1.1	131	1.8	121	3.1	117	3.8	114	4.4	110	5.1	107	5.8	105	6.5	102	7.1
	3275	185	1.4	178	2.3	169	4.1	165	4.9	161	5.8	158	6.7	155	7.6	152	8.5	150	9.3
36	1160	95	0.7	85	1.2	72	2.3	66	2.8	61	3.3								
	1760	156	1.1	147	1.9	133	3.4	128	4.2	123	5.0								
	2500	232	1.5	222	2.6	208	4.9	203	6.0	198	7.1								
	3275	311	2.0	301	3.5	288	6.4	282	7.8	277	9.3								
45	860	79	0.6	68	1.1	53	2.0	48	2.4	42	2.9								
	1760	188	1.3	177	2.2	162	4.1	156	5.0	151	5.9	146	6.9	141	7.8	137	8.7	133	9.6
	2500	277	1.7	267	3.1	252	5.8	246	7.1	241	8.4	236	9.7	231	11.1	227	12.4	223	13.7
	3050	344	2.2	333	3.8	318	7.1	313	8.7	307	10.3	302	11.9	298	13.5	293	15.1	289	16.7
47	860	109	0.8	97	1.4	81	2.6	74	3.2	68	3.8								
	1760	253	1.6	241	2.8	225	5.3	218	6.5	212	7.7	206	8.9						
	2500	371	2.3	359	4.0	343	7.5	336	9.2	330	10.9	324	12.7						
	3050	458	2.7	447	4.9	430	9.1	424	11.2	418	13.3	412	15.5						
56	700	123	0.9	110	1.6	92	2.9	85	3.6	78	4.3	72	4.9	66	5.6				
	1400	278	1.8	265	3.1	247	5.8	239	7.2	233	8.5	226	9.9	221	11.2	215	12.6	210	13.9
	1760	358	2.2	345	3.9	326	7.3	319	9.0	312	10.7	306	12.4	300	14.1	295	15.8	290	17.5
	2440	508	3.1	495	5.4	476	10.2	469	12.5	462	14.9	456	17.2	450	19.6	445	21.9	440	24.3
59	700	187	1.2	170	2.2	147	4.2	138	5.1	130	6.1								
	1400	415	2.4	396	4.4	373	8.3	364	10.3	356	12.3	348	14.2						
	1760	529	3.0	513	5.5	490	10.5	480	12.9	472	15.4	464	17.9						
	2440	749	4.2	732	7.6	709	14.5	700	17.9	692	21.4	684	24.8						
615	700	413	2.5	372	4.7	315	9.2	292	11.4	271	13.6								
	1400	938	5.1	898	9.6	841	18.7	818	23.2	797	27.7								
	1760	1205	6.4	1164	12.1	1107	23.5	1084	29.1	1063	34.8								
	1900	1308	6.9	1268	13.1	1211	25.3	1188	31.4	1167	37.6								
	2100	1456	7.7	1416	14.4	1359	28.0	1336	34.8	1315	41.5								
711	575	361	2.4	336	4.0	299	7.7	284	9.6	271	11.4	258	13.3	247	15.1	236	17.0	226	18.8
	1000	675	3.8	649	7.0	613	13.4	598	16.6	584	19.9	572	23.1	561	26.3	550	29.5	540	32.7
	1400	970	5.1	944	9.8	908	18.8	893	23.3	880	27.8	867	32.3	856	36.8	845	41.3	835	45.8
	1760	1236	6.2	1210	12.3	1173	23.6	1159	29.3	1145	34.9	1133	40.6	1121	46.3	1111	51.9	1101	57.6
	1800	1266	6.4	1240	12.6	1203	24.2	1188	29.9	1175	35.7	1162	41.5	1151	47.3	1140	53.1	1130	58.9
718	575	600	3.3	563	6.3	510	12.3	489	15.4	470	18.4								
	1000	1110	5.8	1073	11.0	1020	21.5	999	26.7	980	31.9								
	1400	1590	8.1	1553	15.4	1500	30.1	1479	37.4	1460	44.7								
	1760	2022	10.2	1985	19.4	1932	37.8	1911	47.0	1892	56.2								
	1800	2070	10.4	2033	19.8	1980	38.7	1959	48.1	1940	57.5								

Frame Size	Speed RPM	4 PSI		5 PSI		6 PSI		7 PSI		8 PSI		10 PSI		11 PSI		12 PSI		15 PSI	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
42	860	24	1.1	21	1.3	18	1.5	15	1.8										
	1760	78	2.2	75	2.7	72	3.1	69	3.6	67	4.1	62	5.0	60	5.5	58	5.9		
	2500	123	3.1	120	3.8	117	4.5	114	5.1	111	5.8	107	7.1	104	7.8	102	8.4		
	3050	156	3.8	153	4.6	150	5.4	147	6.3	145	7.1	140	8.7	138	9.5	136	10.3		
53	700	51	1.8	46	2.2	42	2.6	38	3.0										
	1400	143	3.6	138	4.4	134	5.3	130	6.1	126	6.9	119	8.5	116	9.3	113	10.1		
	1760	191	4.6	186	5.6	181	6.6	177	7.6	173	8.6	167	10.7	163	11.7	160	12.7		
	2440	280	6.4	275	7.8	271	9.2	267	10.6	263	12.0	256	14.8	253	16.2	250	17.6		
65	700	105	3.2	97	4.0	90	4.7	84	5.5	78	6.2								
	1400	279	6.6	272	8.1	265	9.6	259	11.1	253	12.6	242	15.6	237	17.1	232	18.6	219	23.1
	1760	368	8.3	360	10.2	353	12.1	347	14.0	341	15.8	330	19.6	325	21.5	320	23.4	307	29.1
	1900	402	8.9	395	11.0	388	13.0	382	15.1	376	17.1	365	21.2	360	23.3	355	25.3	342	31.4
	2100	452	9.9	444	12.2	437	14.4	431	16.7	425	18.9	414	23.4	409	25.7	404	27.9	391	34.7
68	700	172	5.1	160	6.3	149	7.5	139	8.7	129	9.9								
	1400	449	10.2	436	12.6	425	15.1	415	17.5	406	19.9	388	24.7	380	27.1				
	1760	591	12.9	579	15.9	567	18.9	557	22.0	548	25.0	530	31.0	522	34.1				
	1900	646	13.9	634	17.2	623	20.4	613	23.7	603	27.0	586	33.5	578	36.8				
	2100	725	15.3	713	19.0	702	22.6	692	26.2	682	29.8	665	37.0	657	40.7				
76	575	158	4.3	150	5.4	142	6.4	135	7.4	128	8.4	115	10.4						
	1000	329	7.6	321	9.4	312	11.1	306	12.9	299	14.6	286	18.1	281	19.9	275	21.6	260	26.8
	1400	490	10.6	482	13.1	473	15.5	466	18.0	459	20.4	447	25.3	442	27.8	436	30.2	421	37.6
	1760	634	13.3	626	16.4	618	19.5	611	22.6	604	25.6	592	31.8	587	34.9	581	38.0	566	47.2
	1800	650	13.6	642	16.8	634	19.9	627	23.1	620	26.2	608	32.5	603	35.7	597	38.8	582	48.3

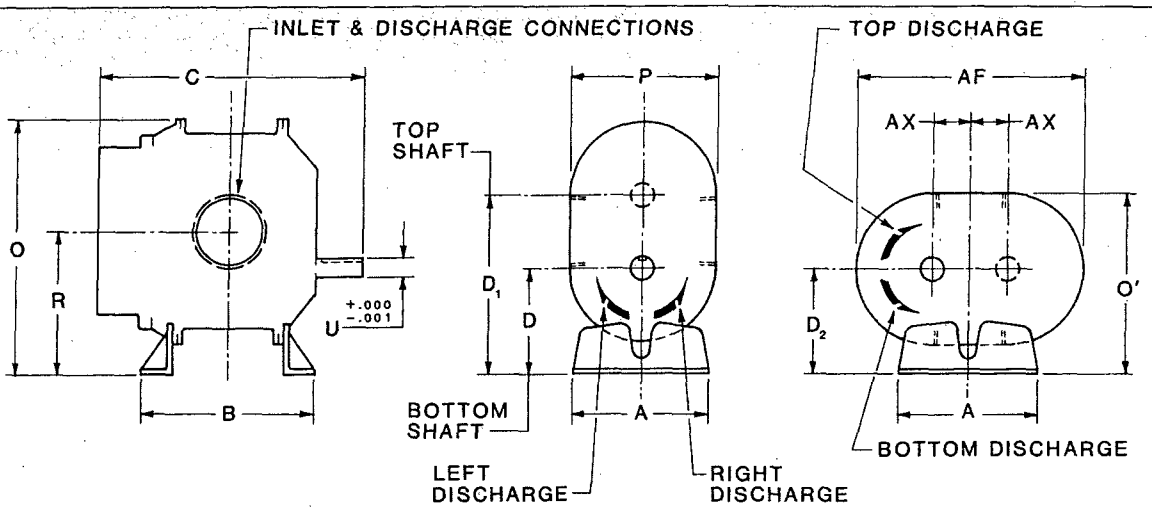
Vacuum Table No. 1

Frame Size	Speed RPM	2" Hg		4" Hg		6" Hg		7" Hg		8" Hg		10" Hg		11" Hg		12" Hg	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
24	1160	24	0.3	18	0.4	12	0.6	10	0.7								
	2600	70	0.6	64	0.9	58	1.3	56	1.5	53	1.7	48	2.0				
	3560	101	0.8	94	1.3	89	1.8	87	2.0	84	2.3	79	2.7				
	4580	133	1.0	127	1.7	122	2.3	119	2.6	117	2.9	111	3.5				
36	1160	94	0.7	83	1.2	74	1.7	69	2.0	65	2.2						
	1760	156	1.1	145	1.8	135	2.6	130	3.0	126	3.4	116	4.1				
	2500	231	1.5	220	2.6	210	3.7	206	4.2	201	4.8	192	5.8				
	3275	310	2.0	299	3.4	289	4.8	285	5.5	280	6.2	271	7.7				
47	860	108	0.8	95	1.3	83	1.9	78	2.2	72	2.5						
	1760	252	1.6	239	2.8	227	3.9	221	4.5	216	5.1	205	6.3	199	6.9	193	7.5
	2500	371	2.3	357	3.9	345	5.6	339	6.5	334	7.3	323	9.0	317	9.9	311	10.7
	3050	458	2.7	444	4.8	433	6.8	427	7.9	422	8.9	410	11.0	405	12.0	399	13.1
59	700	186	1.2	167	2.1	151	3.1	143	3.6	135	4.1						
	1400	415	2.4	393	4.3	377	6.2	369	7.2	361	8.1	345	10.1	337	11.0		
	1760	528	3.0	509	5.4	493	7.8	485	9.0	477	10.2	462	12.7	454	13.9	445	15.1
	2440	748	4.1	729	7.5	713	10.8	705	12.5	697	14.2	681	17.5	673	19.2	665	20.9
615	700	411	2.5	364	4.6	323	6.8	304	7.9	285	9.0						
	1400	936	5.0	889	9.4	849	13.8	829	16.0	810	18.3	771	22.7	751	24.9		
	1760	1202	6.3	1156	11.8	1115	17.4	1096	20.3	1077	23.0	1038	28.5	1017	31.3		
	1900	1306	6.8	1259	12.8	1219	18.8	1199	21.8	1180	24.8	1141	30.8	1121	33.8		
	2100	1454	7.5	1407	14.1	1367	20.8	1347	24.1	1328	27.4	1289	34.0	1269	37.3	1248	40.6
718	575	598	3.3	555	6.2	517	9.1	500	10.6	482	12.1	446	15.0				
	1000	1108	5.7	1065	10.8	1027	15.9	1010	18.5	992	21.0	956	26.1	937	28.7		
	1400	1588	7.9	1545	15.1	1507	22.3	1490	25.9	1472	29.4	1436	36.6	1417	40.2	1398	43.8
	1760	2020	10.0	1977	19.0	1939	28.0	1922	32.5	1904	37.0	1868	46.0	1849	50.5	1830	55.0
	1800	2068	10.2	2025	19.4	1987	28.6	1970	33.2	1952	37.8	1916	47.0	1897	51.6	1878	56.3

Vacuum Table No. 2

Frame Size	Speed RPM	4" Hg		6" Hg		8" Hg		10" Hg		12" Hg		14" Hg		15" Hg		16" Hg	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
22	1160	6	0.3	3	0.3												
	2600	29	0.6	26	0.8	23	0.9	19	1.1								
	3560	45	0.8	41	1.0	38	1.3	35	1.5	31	1.8						
	4580	61	1.0	58	1.3	54	1.7	51	2.0	48	2.3						
33	1160	47	0.8	40	1.1	33	1.4										
	1760	84	1.2	77	1.7	70	2.1	64	2.6	57	3.1						
	2500	129	1.7	122	2.4	116	3.0	109	3.7	103	4.4						
	3275	177	2.3	170	3.1	164	4.0	157	4.8	150	5.7	143	6.6				
42	860	31	0.6	25	0.8	19	1.1										
	1760	85	1.3	79	1.7	74	2.2	68	2.6	62	3.1	56	3.5				
	2500	130	1.8	124	2.4	119	3.1	113	3.7	107	4.4	101	5.0				
	3050	163	2.2	158	3.0	152	3.8	146	4.6	140	5.3	134	6.1				
45	860	66	1.1	56	1.5	46	1.9										
	1760	175	2.2	164	3.1	154	4.0	144	4.9	134	5.8						
	2500	264	3.1	254	4.4	244	5.7	234	7.0	223	8.2	212	9.5				
	3050	331	3.8	321	5.3	311	6.9	300	8.5	290	10.1	278	11.6				
53	700	61	1.0	53	1.4	44	1.8	36	2.2								
	1400	153	2.0	145	2.8	137	3.6	128	4.4	120	5.1						
	1760	201	2.5	192	3.5	184	4.5	176	5.5	167	6.5	158	7.5				
	2440	290	3.5	282	4.9	274	6.2	265	7.6	257	9.0	247	10.3				
56	700	108	1.5	95	2.2	82	2.9	70	3.5								
	1400	262	3.1	249	4.4	237	5.7	224	7.0	211	8.3						
	1760	342	3.9	329	5.5	316	7.2	304	8.8	291	10.5	276	12.1				
	2440	492	5.3	479	7.6	467	9.9	454	12.2	441	14.5	427	16.8				
65	700	121	1.7	107	2.5	95	3.2	82	3.9								
	1400	296	3.5	282	5.0	269	6.5	256	7.9	243	9.4	228	10.9	220	11.6		
	1760	384	4.4	371	6.3	358	8.1	345	10.0	331	11.8	317	13.7	309	14.6		
	1900	419	4.8	405	6.8	392	8.8	379	10.8	366	12.8	351	14.7	343	15.8		
	2100	468	5.3	454	7.5	442	9.7	429	11.9	415	14.1	400	16.3	393	17.4	384	18.5
68	700	190	2.6	177	3.8	156	5.0	135	6.2								
	1400	475	5.3	453	7.7	432	10.0	412	12.4	390	14.7	366	17.1	353	18.3		
	1760	617	6.7	595	9.6	575	12.6	554	15.6	532	18.5	508	21.5	495	23.0		
	1900	672	7.2	651	10.4	630	13.6	609	16.8	587	20.0	564	23.2	551	24.8	537	26.4
	2100	751	8.0	730	11.5	709	15.0	688	18.6	666	22.1	643	25.6	630	27.4	616	29.2
76	575	176	2.3	161	3.3	147	4.3	132	5.2	117	6.2						
	1000	348	3.9	332	5.7	317	7.4	303	9.1	287	10.8	271	12.5	262	13.4		
	1400	508	5.6	493	8.0	478	10.4	464	12.8	448	15.2	432	17.6	423	18.8	413	20.0
	1760	651	7.0	637	10.0	623	13.0	608	16.1	593	19.1	576	22.1	567	23.6	558	25.1
	1800	667	7.2	653	10.2	639	13.3	624	16.4	609	19.5	592	22.6	583	24.1	574	25.7
711	575	331	4.0	304	5.7	279	7.6	254	9.4	228	11.2						
	1000	644	6.8	618	10.0	593	13.1	568	16.3	542	19.4	513	22.6	497	24.2		
	1400	939	9.8	913	14.0	888	18.4	863	22.8	837	27.2	808	31.6	793	33.8		
	1760	1205	12.3	1179	17.6	1154	23.1	1129	28.7	1103	34.2	1074	39.7	1058	42.5	1042	45.3
	1800	1234	12.6	1208	18.0	1183	23.6	1158	29.3	1132	35.0	1103	40.6	1088	43.5	1071	46.3

Frame Sizes



VERTICAL CONFIGURATION — HORIZONTAL CONFIGURATION

Frame Size	A	B	C	Drive Shaft Location D Bottom Shaft	Drive Shaft Location D_1 Top Shaft	Drive Shaft Location D_2 Horiz. Shaft	O	O'	P	R	U	Keyway	Inlet & Disch. Dia.	AF	AX	Approx. Net Wt. (Lbs.)
22	5.13	5.00	9.75	3.75	6.25	3.75	9.63	6.88	6.25	5.00	.625	.188 x .094	1.0 NPT	9.25	1.25	32
24	5.13	7.00	11.75	3.75	6.25	3.75	9.63	6.88	6.25	5.00	.625	.188 x .094	2.0 NPT	9.25	1.25	43
33	7.25	7.63	12.13	5.00	8.50	5.00	12.81	8.88	7.75	6.75	.750	.188 x .094	2.0 NPT	12.13	1.75	74
36	7.25	10.00	14.63	5.00	8.50	5.00	12.81	8.88	7.75	6.75	.750	.188 x .094	2.5 NPT	12.13	1.75	102
42	8.00	7.25	13.00	6.25	10.25	6.25	15.06	10.63	8.75	8.25	.875	.188 x .094	1.5 NPT	13.63	2.00	88
45	8.00	10.00	15.50	6.25	10.25	6.25	15.06	10.63	8.75	8.25	.875	.188 x .094	2.5 NPT	13.63	2.00	109
47	8.00	11.75	17.63	6.25	10.25	6.25	15.06	10.50	8.50	8.25	.875	.188 x .094	3.0 NPT	13.63	2.00	128
53	10.50	8.38	15.38	6.25	11.25	6.75	17.38	11.88	10.25	8.75	1.125	.250 x .125	2.5 NPT	17.25	2.50	143
56	10.50	11.00	18.00	6.25	11.25	6.75	17.38	12.25	11.00	8.75	1.125	.250 x .125	4.0 NPT	17.25	2.50	170
59	10.50	14.00	21.18	6.25	11.25	6.75	17.38	12.25	11.00	8.75	1.125	.250 x .125	4.0 NPT	17.25	2.50	204
65	11.00*	10.00	18.38	8.75	14.75	8.75	21.63	15.13	12.75	11.75	1.375	.312 x .156	3.0 NPT	19.75	3.00	245
68	11.00*	13.00	21.38	8.75	14.75	8.75	21.63	15.13	12.75	11.75	1.375	.312 x .156	5.0 NPT	19.75	3.00	285
615	11.00*	20.00	28.38	8.75	14.75	8.75	21.63	16.25	15.00	11.75	1.375	.312 x .156	6.0 FLG	19.75	3.00	425
76	14.00**	11.75	19.94	11.00	18.00	11.00	26.13	20.69	19.38	14.50	1.562	.375 x .188	4.0 NPT	23.25	3.50	400
711	14.00**	16.75	25.19	11.00	18.00	11.00	26.13	19.50	17.00	14.50	1.562	.375 x .188	6.0 FLG	23.25	3.50	530
718	14.00**	23.75	32.19	11.00	18.00	11.00	26.13	19.50	17.00	14.50	1.562	.375 x .188	8.0 FLG	23.25	3.50	650

*17.00 in horizontal configuration
**21.00 in horizontal configuration

All dimensions in inches

Roots history

The Roots rotary positive blower originated in Connersville, Indiana, in 1854. Two brothers, Francis and Philander Roots, operated a woolen mill in this southeast Indiana town. While redesigning a waterwheel, these two innovators realized they could convert that design into a blast blower for their cupola. It worked so well as a blower that they began to manufacture the "Roots" blower.

Since then, Roots blowers have been refined, improved, and applied in practically every industry around the world. And because they are backed by more years of experience in product manufacturing, product improvement, and product application expertise, our time-tested, rugged, and dependable blowers can provide you with the most efficient and economical operation available today.

Universal RAI®

Other Roots products

The Universal RAI blower is only one of our wide variety of products. If you're looking for:

- Single-stage centrifugal compressors
- Multi-stage centrifugal compressors
- Centrifugal vacuum exhausters
- Single-stage dry rotary vacuum pumps
- Two-stage water-sealed rotary vacuum pumps
- Rotary gas pumps

...we've got them. Including other rotary positive blowers with the range and capacity to give you air flows up to 28,400 CFM, vacuums up to 22" Hg, and pressures up to 30 PSIG.

To get more free facts about the specifications for any of our models, contact us or call your local Roots representative. He's in the Yellow Pages under "Blowers and Blower Systems."

ROOTS

DRESSER INDUSTRIES, INC.
ROOTS DIVISION
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TELEPHONE: 317/827-9200

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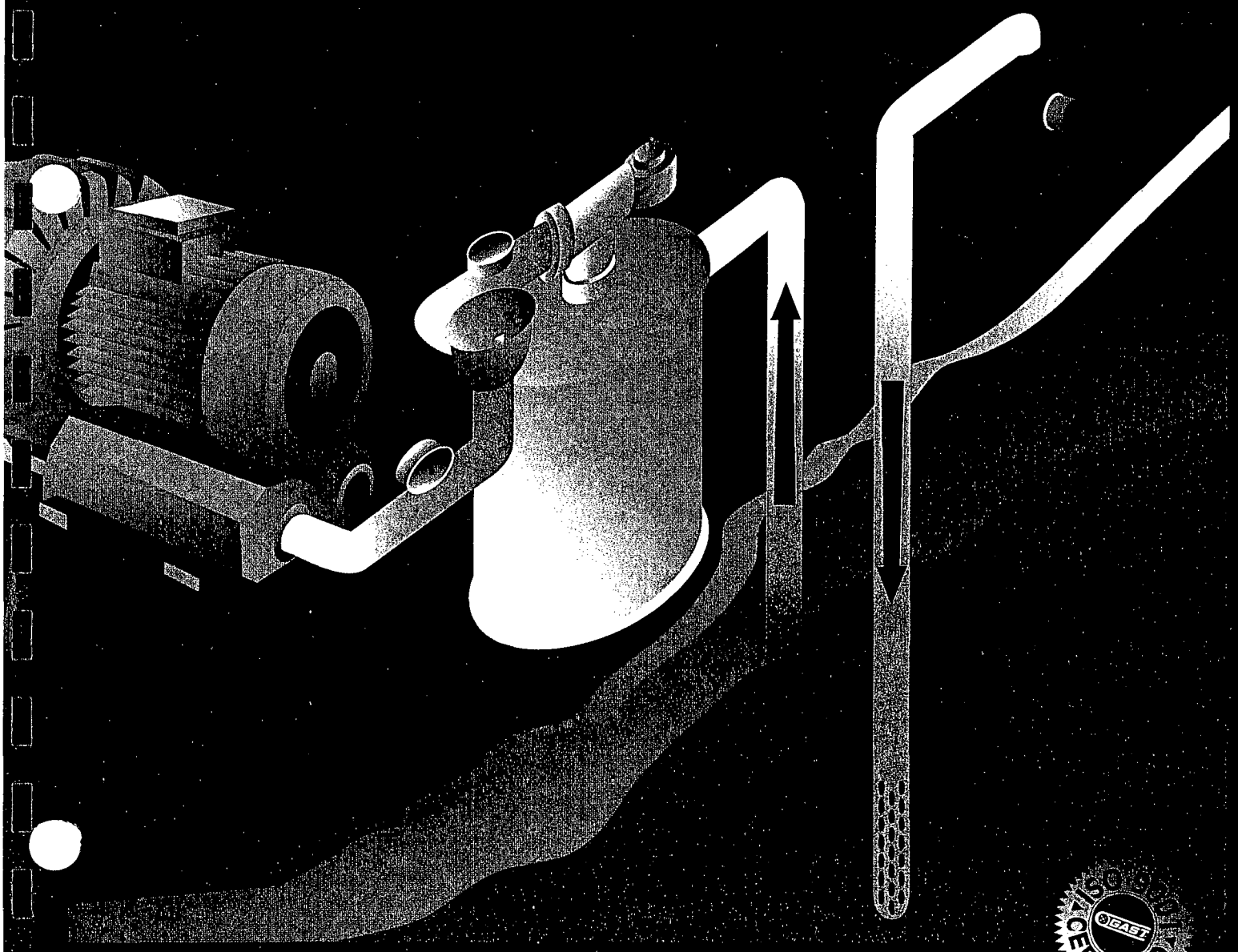
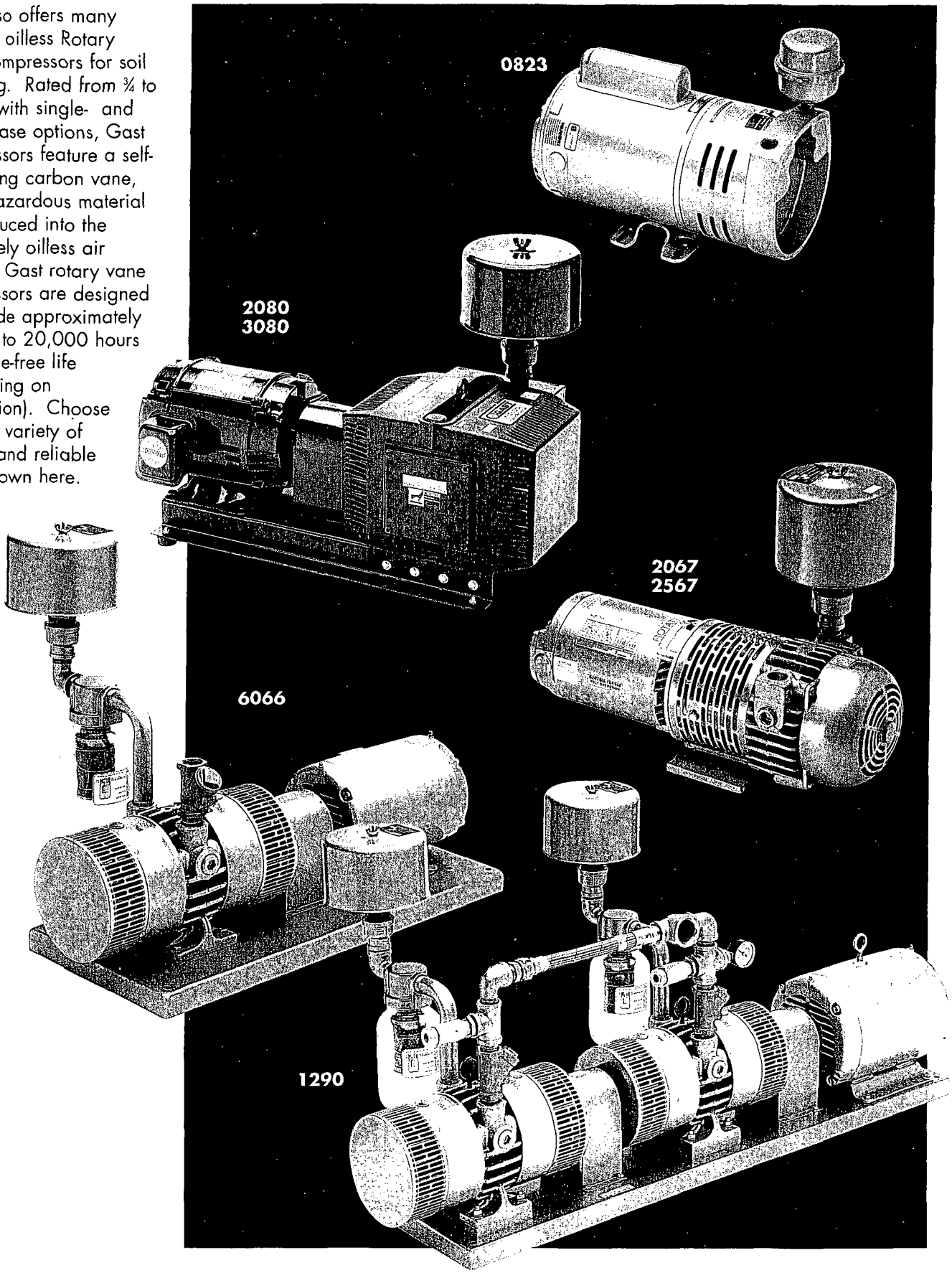
GAST



ISO 9001 CERTIFIED

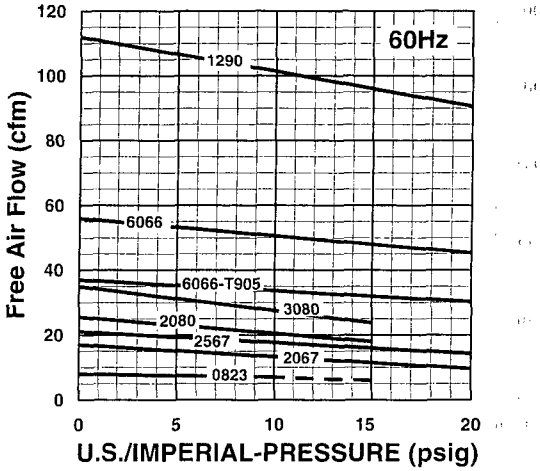
Gast also offers many types of oilless Rotary Vane compressors for soil sparging. Rated from ¾ to 10 HP, with single- and three-phase options, Gast compressors feature a self-lubricating carbon vane, so no hazardous material is introduced into the completely oilless air stream. Gast rotary vane compressors are designed to provide approximately 10,000 to 20,000 hours of service-free life (depending on application). Choose from the variety of rugged and reliable styles shown here.



Product Specifications Model Number	Motor Specifications Phase	Hz	Voltage	HP	Max. Pressure @ 60Hz psi	1 bar	Max. Flow @ 60Hz cfm	m^3h	Net Wt. lbs	kg
0823-P155-G608X*	Single	50	100-110-220/240	0.75	10 (15 inter)	0,7 (1,0)	8	14	50	23
		60	100-115-208/230							
2080-P124-T337	Three	60	230/460	2.0	15	1,0	25	42	135	61
2080-P124-T906X	Single	60	115/230	3.0	15	1,0	25	42	135	61
3080-P124-T338	Three	60	208-230/460	3.0	15	1,0	35	59	160	72
3080-P124-T907X	Single	60	208-230	5.0	15	1,0	35	59	160	72
2067-P118-G470X	Single	60	115-230	1.5	20	1,4	17	29	84	38
2067-P118-G471*	Three	50	220/380-415	1.0	20	1,4	17	29	84	38
		60	208/230-460							
2567-P132-G475	Three	60	230/460	2.0	20	1,4	21	36	85	38
2567-P132-T908X	Single	60	115/230	2.0	20	1,4	21	36	85	38
6066-P122-T905	Three	60	208-230/460	5.0	20	1,4	37	63	205	92
6066-P122-T339**	Three	60	208-230/460	5.0	15	1,0	55	93	205	92
6066-P122-T909	Three	60	208-230/460	7.5	20	1,4	37	63	205	92
1290-P110-T904**	Three	60	208-230/460	10	15	1,0	112	190	430	194
→ 1290-P110-T910	Three	60	208-230/460	15	20	1,4	112	190	440	198 ←

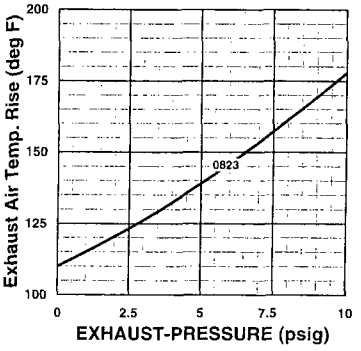
NOTICE: Pictorial, performance and dimensional data are subject to change without notice.
*For 50Hz performance reduce performance shown by approximately 17%
**These models are capable of 15 psi max. performance.

PRESSURE



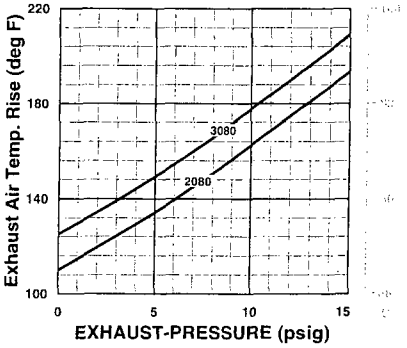
0823

EXHAUST TEMPERATURE



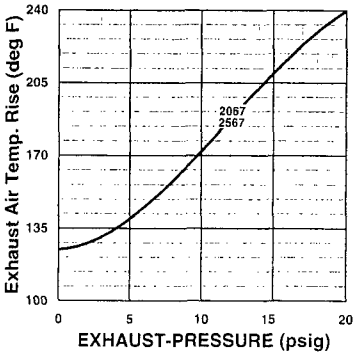
2080, 3080

EXHAUST TEMPERATURE



2067, 2567

EXHAUST TEMPERATURE



1290, 6066-T909, 6066-T905

EXHAUST TEMPERATURE