

SUPPLEMENTAL DRILLING DATA

FRED POOL DRILLING, INC.
Hanagan Federal NO. 1
NW/SE, Sec.31,T19S,R30E
Eddy County, N.M.

1) SURFACE FORMATION: Artesia Group of Permian Age. Elevation 3318 Gr.

2) ESTIMATED TOPS OF GEOLOGIC MARKERS:

Rustler	355ft.
Base Salt	1165
Yates	1315
Seven Rivers	1625
Delaware Sand	3550
Bone Springs	5915

3) ANTICIPATED POROSITY ZONES:

Fresh water	250
Capitan reef	2000 to 3200
Oil and Gas	3900 to 4800; 6000 to 8400

4) CASING PROGRAM DESIGN:

	<u>INTERVAL</u>	<u>SIZE</u>	<u>WEIGHT</u>	<u>GRADE</u>
0 -	350	16"	75#	K 55
0 -	1200	11 3/4	47#	K 55
0 -	3200	7 5/8	26#	K 55
0 -	9000	4 1/2	10.5	K 55

5) SURFACE CONTROL EQUIPMENT:

A double-ram type BOP will be used.

6) CIRCULATING MEDIUM:

Fresh water mud conditioned as necessary for control of viscosity and water loss, except the salt section, which will be drilled with brine water.

7) AUXILLARY EQUIPMENT: None considered necessary.

8) TESTING, LOGGING, AND CORING:

No coring, or DST's are planned. A mudlogging unit will be used. Electric logs will include a CNL-FDC and a DLL-RXO with GR and hole caliper.

9) ABNORMAL PRESSURE, TEMPERATURES OR GASSES:

None anticipated.

10) ANTICIPATED STARTING DATE:

It is planne that operations will commence about December 1, 1989. Duration of drilling, completion, and testing operations should be two to six weeks.