

SUPPLEMENTAL DRILLING DATA
FRED POOL OPERATING COMPANY
#1 Arco Federal
330' FNL & 2310' FEL
Section 21, T 18 S, R 29 E
Eddy County, New Mexico

In conjunction with Form 9-331 C, Application for Permit to Drill the subject well, Fred Pool Operating Company submits the following ten items of pertinent information in accordance with USGS requirements.

- 1) The geologic surface formation is quaternary.
- 2) The estimated tops of geologic markers are as follows:

Base Salt	850'
Yates	1012'
Seven Rivers	1380'
Queen	2008'
Penrose	2159'
Grayburg	2342'
Loco Hills	2450'
San Andres	2834'
Lovington Sand	2983'

- 3) The estimated depths at which anticipated water, oil, or gas are expected to be encountered:

Water:	Approximately 265'
Oil or Gas:	Approximately 1350', 1800'-50', 2300', 2450', 2500', 2720'- 2830', 3030'.

- 4) Proposed casing program: (See Form 9-331 C)
- | <u>Size</u> | <u>Interval</u> | <u>Wt.</u> | <u>Grade</u> | <u>Joint</u> | <u>New or Used</u> |
|-------------|-----------------|------------|--------------|--------------|--------------------|
| 8 5/8" | 0' - 350' | 24# | K | ST&C | New |
| 5 1/2" | 0' - 3200' | 15.5# | J | ST&C | Used |

- 5) Pressure Control Equipment:

The blowout preventor will be an annular type.
(A sketch is attached, Exhibit A)

- 6) Mud Program:

A copy of the mud program to be used is attached.
(Exhibit B)

- 7) Auxiliary Equipment:

Master valve on BOP.