

DRILLING PROGRAM

Attachment to Form 3160-3
Anadarko Petroleum Corporation
Baish Federal No. 7
1980' FNL & 660' FEL
Section 9, T18S, R31E
Eddy County, New Mexico

1. Geologic Name of Surface Formation

Quaternary Alluvium

2. Estimated Tops of Important Geological Formations

Top of Salt Section	780'
Base of Salt Section	1800'
Yates	1800'
Queen	3197'
San Andres	4285'
Bone Spring	5945'
Bone Spring Sand	7412'
Bone Spring 2 nd Carbonate	7712'
Bone Spring 2 nd Sand	8022'
Bone Spring 3 rd Sand	8722'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas

Water: None Anticipated
Oil: 3197', 7712', 8022'
Gas: Very Little Anticipated

No other formations are expected to yield oil, gas or fresh water in measurable volumes. Any surface fresh water sands will be protected by setting 13-3/8" casing at 700' and circulating cement back to surface. The Salt will be isolated with an 8-5/8" continued intermediate casing string set into the Yates @ approximately 2200' and cement circulated to surface. The Bone Spring will be isolated with 5-1/2" casing to total depth (9200'±) and cemented with cement back into the 8-5/8" intermediate casing.

4. Casing Program

<u>Hole Size</u>	<u>Interval</u>	<u>Casing OD</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>
17-1/2"	0' - 700'	13-3/8"	48#	H-40	ST&C
11"	0' - 2200'	8-5/8"	24#	K-55	ST&C
7-7/8"	0' - 9200'	5-1/2"	15.5# & 17#	K-55 & N-80	Butt & LT&C

Cementing Program

- 700' 13-3/8" Surface Casing: Cement to surface: 405 sxs Class C containing 4% Gel, 2% Calcium Chloride followed by 235 sxs Class C containing 2% Calcium Chloride.
- 2200' 8-5/8" Intermediate Casing: Cement to surface: 360 sxs Interfill C containing 1/4#/sack Flocele followed by 205 sxs Class C containing 2% Calcium Chloride.
- 9200' 5 1/2" Production Casing
- Lead Slurry: Cement Lead to cover from 7500' up to and inside 8-5/8" casing to 2000' using 50:50 Poz C with 10% Gel, 0.5% FLAC, 0.25% TIC, 0.25 pps Cello-Flake + 5 pps Kolite (in 1st 175 sacks).
- Tail Slurry: Cement tail to cover from TD up to 7500' using 50:50 Poz C with 2% Gel, 0.3% FLAC, 0.2% TIC, 0.25 pps Cello-Flake, 1% B28.

5. Minimum Specifications for Pressure Control

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (3M system) double ram type (3000# WP) preventor. This unit will be hydraulically operated. The BOP will be installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. As per BLM Drilling Operations Order #2, prior to drilling out the 8 5/8" casing shoe, the BOP will be function tested.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These function tests will be documented on the daily driller's log. Other accessory BOP equipment will include a kelly cock, floor safety valve, choke lines and choke manifold having a 3000# WP rating.

6. Types and Characteristics of Proposed Mud System

This well will be drilled to total depth with fresh water, cut brine and starch mud systems. Depths are as follows:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' - 700'	Fresh water	8.3 - 8.8	28 - 36	No control
700' - 2200'	Brine	10.0 - 10.2	28 - 30	No control
2200' - 7400'	Fresh Water	8.3 - 8.8	28 - 30	No control
7400' - TD	Cut Brine with Starch	9.0 - 9.6	30 - 34	< 20 cc

7. Auxiliary Well Control and Monitoring Equipment

- A. A kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

8. Logging, Testing and Coring Program

- A. No drillstem tests are planned.
- B. The open hole electrical logging program will be:
 - 1. DLL/MSFL/GR (TD to 5500')
Note: GR will be pulled to Ground Level
 - 2. DEN/NEU/CAL (TD to 5500')
Note: Neutron log will be pulled to Ground Level
- C. No coring program is planned.
- D. No additional testing will be initiated subsequent to setting the 5-1/2" production casing.

9. Abnormal Pressures, Temperatures and Potential Hazards

No abnormal pressures or temperatures are expected. The anticipated bottom hole temperature at total depth is 130 degrees and maximum bottom pressure is 2600 psia. No major lost circulation intervals have been encountered in adjacent wells. Small quantities of hydrogen sulfide gas are associated with the Queen, Grayburg and San Andres formations in this area. A hydrogen sulfide plan is attached.

10. Anticipated Starting Date and Duration of Operations

A cultural resources examination has been submitted by Desert West to the BLM office in Carlsbad, New Mexico.

Road and location preparation will not be undertaken until approval has been received from the BLM. The anticipated spud date for this well is approximately January 23, 2000. The drilling operation should require approximately 17 days. If the well is deemed productive, completion operations will require, at minimum, an additional 30 days for completion and testing.