

Application for Permit to Drill Little Box Canyon Unit No. 3

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May 16, 1977

7. Estimated tops of important geologic markers:

Clearfork	2950
Abo	3520
Wolfcamp	4780
Canyon	6480
Strawn	7370
Atoka	7800
Morrow	7970
"b" zone	8100
"a" zone	8200
Chester	8260
TD	8310

8. Estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered:

A. Primary objective (top) Morrow SS	7970
B. Secondary objectives (top) Canyon	6480
Strawn	7370

9. The proposed casing program is as follows:

Conductor:	13-3/8" OD 48# H40 ST&C new casing
Surface:	8-5/8" OD 24# K55 ST&C new casing
Production:	5-1/2" OD 15.5 and 17# K55 and N80 ST&C and LT&C new casing

10. Casing setting depth and cementing program.

- A. 13-3/8" OD conductor pipe set at 30' by rat hole machine and cemented to the bottom of the cellar with three yards Redi-Mix.
- B. 8-5/8" OD surface casing set at 1800'. Cement with 700 sacks Halliburton Lite weight cement with 5# Gilsomite, 1/4# Flocele and 2% Calcium Chloride followed by 300 sacks Class C with 2% Calcium Chloride. If cement does not circulate, run temperature survey then run 1" in annulus and finish cementing to the surface using Class C and 2-4% Calcium Chloride in stages.