

(May 1963)

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Budget Bureau No. 42-R142b.

UNITED STATES
DEPARTMENT OF THE INTERIORRECEIVED
FEB 5 1979
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒or GAS
WELL ☒SINGLE
ZONE ☐MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Anadarko Production Company

3. ADDRESS OF OPERATOR

P. O. Box 67, Loco Hills, New Mexico 88255

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

660' FSL & 1980' FEL Sec. 20, T13S, R31E

At proposed prod. zone

Same

Chaves County, New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

25 Miles North of Maljamar, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

660'

16. NO. OF ACRES IN LEASE

480

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

5600'

19. PROPOSED DEPTH

2825'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

4230.8 GL

22. APPROX. DATE WORK WILL START*

3-20-79

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	350'	150 sx
7-7/8"	4-1/2"	10.5#	2820'	250 sx
CHANGE IN DRILLING PROGRAM				

1. Rig up rotary tools.
2. Drill to approximately 350', set and circulate or ready-mix cement to surface on 8-5/8" casing. Install and test Series 900 Double Ram Hydraulic Blowout Preventor.
3. Drill to 2730'; core 2730' to 2780'.
4. Drill to T. D. - approximately 2825', run Open Hole Log.
5. Set and cement 4 1/2" casing on T. D.
6. Perforate, acidize and fracture treat well.
7. Run 2-3/8" tubing and packer if production is gas or 2-3/8" tubing, bottom-hole pump and rods if production is oil.
8. Install Christmas Tree or pumping equipment and place well on production.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depth. Give blowout preventer program, if any.

24.

SIGNED

Jerry E. Apple

TITLE

Area Supervisor

DATE

February 2, 1979

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

(Orig. Sgd.) ALBERT R. STALL

TITLE

ACTING DISTRICT ENGINEER

DATE

FEB 13 1979

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

Subject to all conditions of the original approval dated Jan. 17, 1979.

*See Instructions On Reverse Side

DATA SHEET

This Data Sheet is provided as a Supplement to our "Application for Permit to Drill - Friend Federal #1.

1. Location: 660' FSL & 1980' FEL Sec. 20, T13S, R31E, Chaves County, New Mexico
2. Elevation: 4230.8 GL
3. Geological Name of Surface Formation: Recent - (Quaternary)
4. Type of Drilling Tools to be Utilized: Rotary
5. Proposed Drilling Depth: 2820'
6. Tops of Important Geological Markers:

Anhydrite	870'
Salt - Top	965'
Salt - Bottom	1540'
Yates	1900'
Queen	2700'
7. Estimated Depths of Anticipated Water, Oil or Gas: 2735' to 2755'
8. Casing Program:

8-5/8", 24#, K-55, ST&C @ 350' (New)
4-1/2", 10.5#, K-55, ST&C @ 2820' (New)
9. Setting Depth of Casing & Amount & Type of Cement:

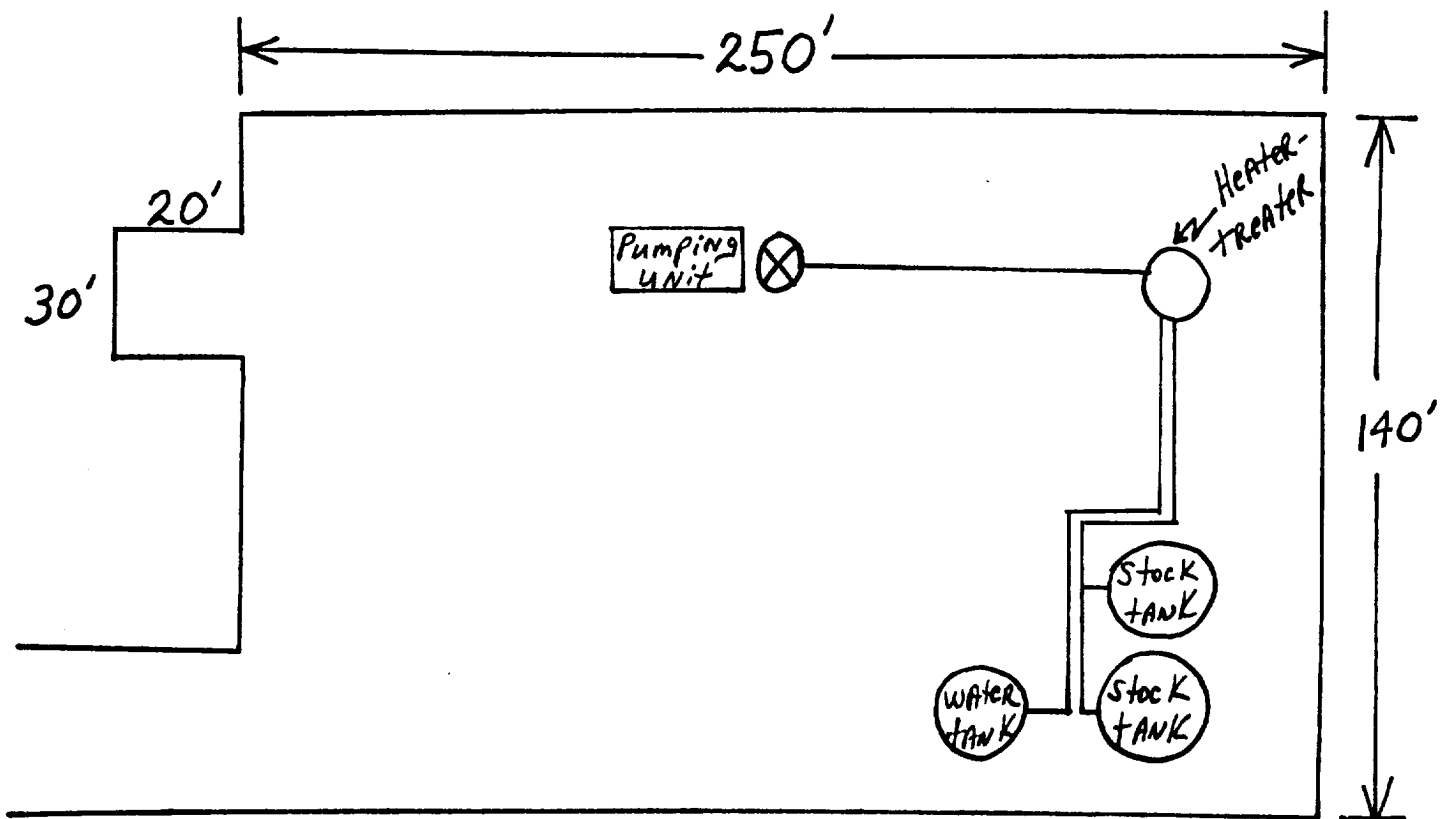
8-5/8" @ 350' cemented with 150 sx Class C w/2% CaCL
4-1/2" @ 2820' cemented with 250 sx Class C 50/50 Posmix with 6# salt/sx & 2% gel/sx
10. Specifications for Pressure Control Equipment: BOP will consist of Shaffer Type E 10" Series 900 BOP with 4" Blind Rams, kill line and choke manifold, Koomey Hydraulic Controls and accumulator with remote controls. When nipping up, test BOP and Choke Manifold to 1500 psi. Operate BOP equipment once a day, or as directed by Company Representative.
11. Mud System: Drill with Native Mud to 2500'. Add Zeogel to increase viscosity to 34 sec; add Drispac to lower water loss to 8 - 12 cc; do not control weight (anticipated weight = 9.4#/gal.)
12. Testing, Logging & Coring Program:
 - A. Testing: Possible DST in Queen Sands - 2730' - 2780'
 - B. Coring: Will core Queen Sands - 2730' - 2780'
 - C. Logging: Run Dual Laterolog & Compensated Neutron-Density Log in Open Hole @ T.D.
13. Potential Hazards: None are expected. Gas might be encountered in Queen Sands while coring; above described BOP should take care of any blowout problems. Numerous wells have been drilled in this area without problems.
14. Anticipated Starting Date & Duration: Construction of drillsite pad is planned during March, 1979. The spud date will be approximately March 20, 1979. Approximately six days will be required to complete the drilling operations. Another 30 days will be required for completion work.

15. Collier & Collier of Riverside, New Mexico was originally scheduled to drill this well.

The proposed TD has since been changed and Collier & Collier cannot drill to the new depth. Therefore, wither WEK Drilling Company or LaRue & Muncy Drilling Co. also of Riverside, New Mexico will drill this well.

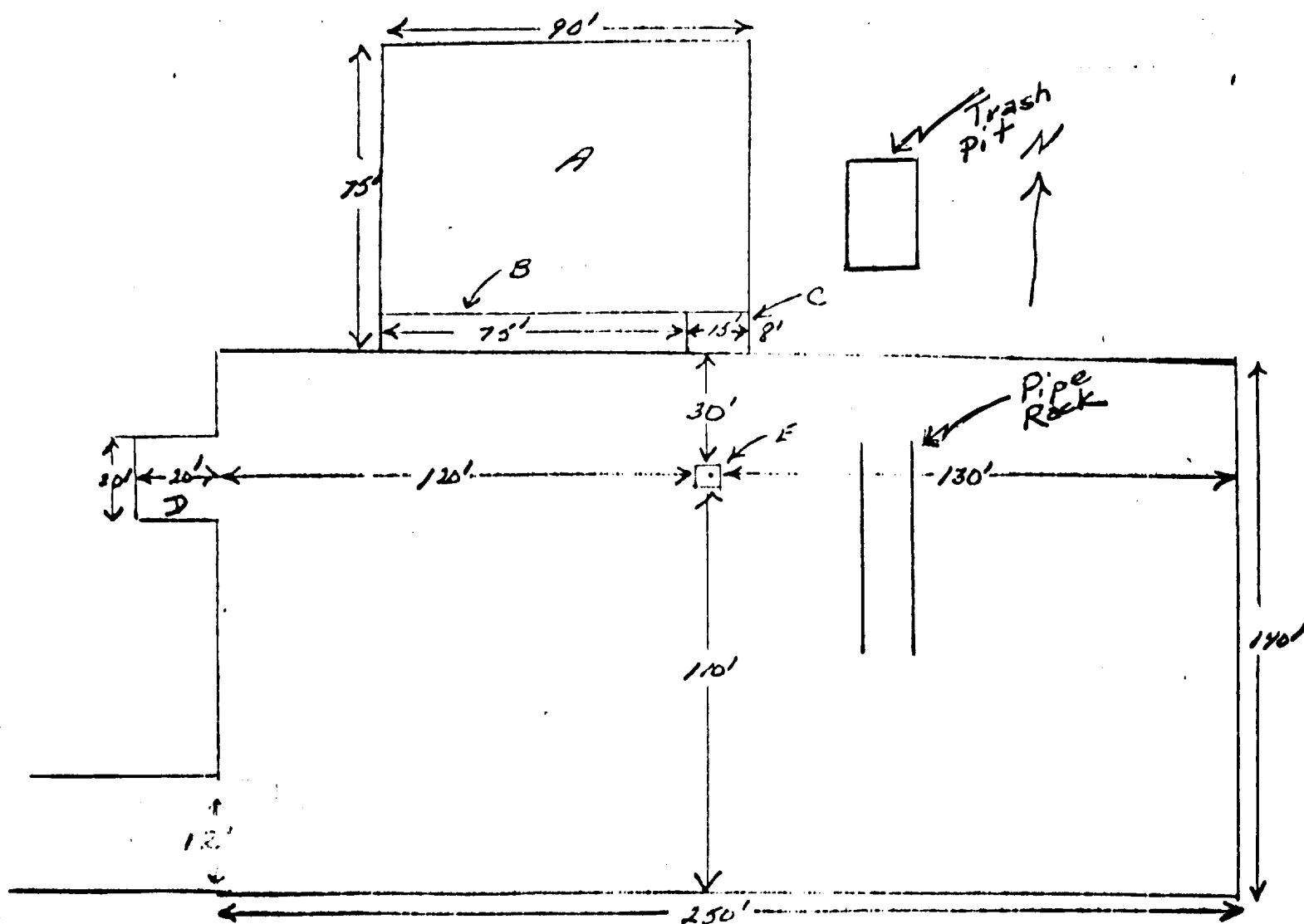
Also added was a coring program & mud program as well as revised location layout and a revised casing program.

North



Friend Federal #1
Production Facilities Layout

Exhibit #3



A - RESERVE PIT D - STINGER
 B - MUD PIT E - CELLAR 5'x5'x5'
 C - SHALE PIT

This rig equipped with Shaffer Type E 10" Series 900 BOP with 4" Blind Rams, kill line and choke manifold. Koomey Hydraulic Controls and Accumulator with remote controls.

FRIEND FEDERAL #1

Exhibit #4