

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-101
Revised 10-1-78

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SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5A. Indicate Type of Lease
STATE ☒ FEE ☐
5. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work b. Type of Well OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> DEEPEN <input checked="" type="checkbox"/> PLUG BACK <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		7. Unit Agreement Name
2. Name of Operator American Exploration Company		8. Farm or Lease Name Elk State
3. Address of Operator 2100 RepublicBank Center, Houston, Texas 77002		9. Well No. 2
4. Location of Well UNIT LETTER <u>M</u> LOCATED <u>330</u> FEET FROM THE <u>South</u> LINE AND <u>990</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>16</u> TWP. <u>23S</u> RGE. <u>37E</u> NMPM		10. Field and Pool, or Wildcat Teague Blinbry Tubb
		12. County Lea
19. Proposed Depth 6120 PBTD		19A. Formation Tubb
20. Rotary or C.T.		
21. Elevations (Show whether DF, RT, etc.) 3311.8 GR	21A. Kind & Status Plug. Bond	21B. Drilling Contractor
		22. Approx. Date Work will start November, 1988

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12-1/2	9-5/8	32.5	1050	*	
8-3/4	7	23 & 26	6000	**	
<i>No new casing will be set</i>					

Attached is the procedure to perforate and stimulate additional pay in the Tubb and Blinbry. If successful, we will downhole commingle these zones.

* Sufficient to circulate to surface

** 200% X calculated capacity required to cement 7" OD casing back to 2400'.

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. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed _____ Title _____ Date _____

(This space for State Use)

APPROVED BY Marty B. McClanahan TITLE Production Dept. DATE November 8, 1988

CONDITIONS OF APPROVAL, IF ANY: **ORIGINAL SIGNED BY JERRY SEXTON**

DISTRICT I SUPERVISOR Permit Expires 6 Months From Approval

Date Unless Drilling Underway.

workover

ELK STATE #2
SEC. 16-T23S-R37E
TEAGUE FIELD
LEA COUNTY, NEW MEXICO

PERFORATE AND ACIDIZE

1. RU WSU. Pull production equipment. ND wellhead. NU BOP. Pull tbg.
2. RIH w/bit, collars, and tbg. RU swivel. Drill out or push CIEP @ 5800' to bottom.
3. Perforate using a 4" steel hollow carrier casing gun w/2 premium charge JSPF @ 6107-09', 6088-94', 6041-50', and 5380-84' (Walex Acoustic Velocity Log dated 7/17/68). If cannot move plug, do not perforate and proceed to Step 11.
4. RIH w/RBP and pkr. Set plug @ 6120'. Set pkr @ 6065'.
5. Acidize w/2000 gals 15% NEFE containing surfactant and inhibitor + 36 BS in 5 equal stages. Overflush 20 bbl w/2% KCl water. Pump @ 4-6 BPM.
6. Swab back load. Swab test to determine stabilized rate. Repeat this step after each successive zone is treated.
7. Move plug to 6025' and test to 1000 psi. Set pkr @ 5980'.
8. Acidize w/3000 gals 15% NEFE containing surfactant and inhibitor + 36 BS in 5 equal stages. Overflush 20 bbl w/2% KCl water. Pump @ 4-6 BPM.
9. Move plug to 5980' and test to 1000 psi. Set pkr @ 5740'.
10. Acidize w/5000 gals 15% NEFE containing surfactant and inhibitor + 800# moth balls in 5 equal stages. Overflush 20 bbl w/2% KCl water. Adjust divert as necessary after Stage 1. Pump @ 4-6 BPM.
11. Move plug to 5515' and test to 1000 psi. Set pkr @ 5250'.
12. Acidize w/3500 gals 15% NEFE containing surfactant and inhibitor + 400# moth balls in 5 equal stages. Overflush 20 bbl w/2% KCl water. Adjust divert as necessary after Stage 1. Pump @ 4-6 BPM.
13. Retrieve plug and POCH. RIH w/production tbg. ND BOP. NU wellhead. Run production equipment. Hang well on.

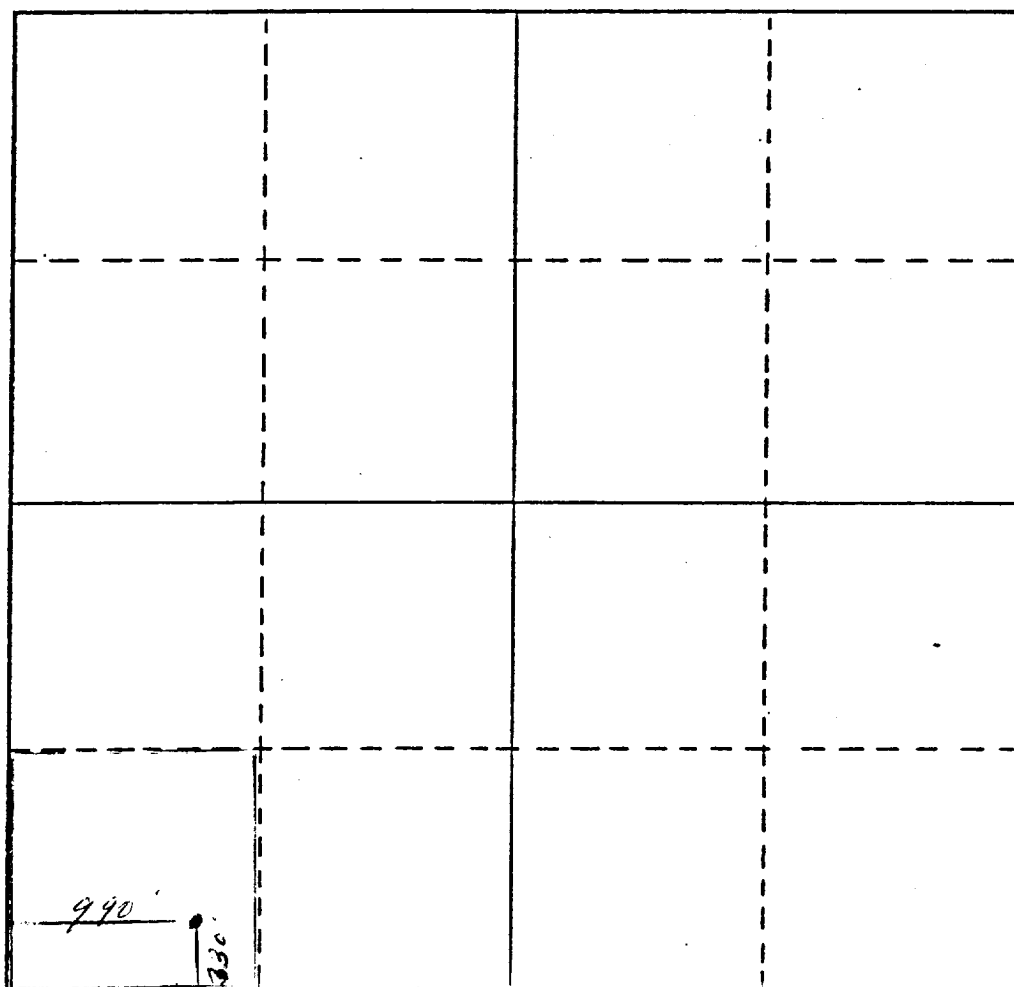
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OIL CONSERVATION DIVISION

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ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-102
Revised 10-1-79

All distances must be from the outer boundaries of the Section.

Operator American Exploration Company			Lease Elk State		Well No. 2
Unit Letter M	Section 16	Township 23S	Range 37E	County Lea	
Actual Footage Location of Well: 330 feet from the South line and 990 feet from the West line					
Ground Level Elev. 3311.8	Producing Formation Tubb Blinbry		Pool Teague Blinbry Tubb		Dedicated Acreage: 40 Acres
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes," type of consolidation <u>Not Applicable</u></p> <p>If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.</p>					



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Marty B. McClanahan
Name

Production Dept.

Position

American Exploration Co.

Company

November 8, 1988

Date

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Land Surveyor

Certificate No.

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0