Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse)

Form approved.
Budget Bureau No. 42-R1425.

30-025-27228

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RECEIVED
DEC 22 1980
U. S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

5. LEASE DESIGNATION AND SERIAL NO.: N.M. 0659

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Arco '19' Federal

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Sawyer (San Andres)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 19, T-9-S, R-38-E

12. COUNTY OR PARISH: Lea | 13. STATE: NM

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Brazos Petroleum Company

3. ADDRESS OF OPERATOR: 708 Petroleum Building, Midland, TX 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1650' FSL & 500' FEL, Sec. 19, T-9-S, R-38-E
At proposed prod. zone: Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 15 miles east of Crossroads, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
500'	160	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
NA	5200'±	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3961' GR

22. APPROX. DATE WORK WILL START*: 12/22/80

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'±	500 sx; circ to surface
7 7/8"	4 1/2"	10.5#	5200'±	300 sx

Blowout Preventer: 8" X 900 Series Shaffer Double Ram

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 depths. Give blowout preventer program, if any.

24.

SIGNED [signature] TITLE Agent DATE 11/11/80

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY (Orig. Sgd.) GEORGE H. STEWART TITLE ACTING DISTRICT ENGINEER DATE JAN 09 1981

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

MEXICO OIL CONSERVATION COMMIS N
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

Operator	Lease	Well No.
Brazos Petroleum Co.	Arco 19 Fed.	1

Unit Letter	Section	Township	Range	County
I	19	9 South	38 East	Lea

Actual Footage Location of Well:
1650 feet from the south line and 500 feet from the east line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3961.4	San Andres	Sawyer	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

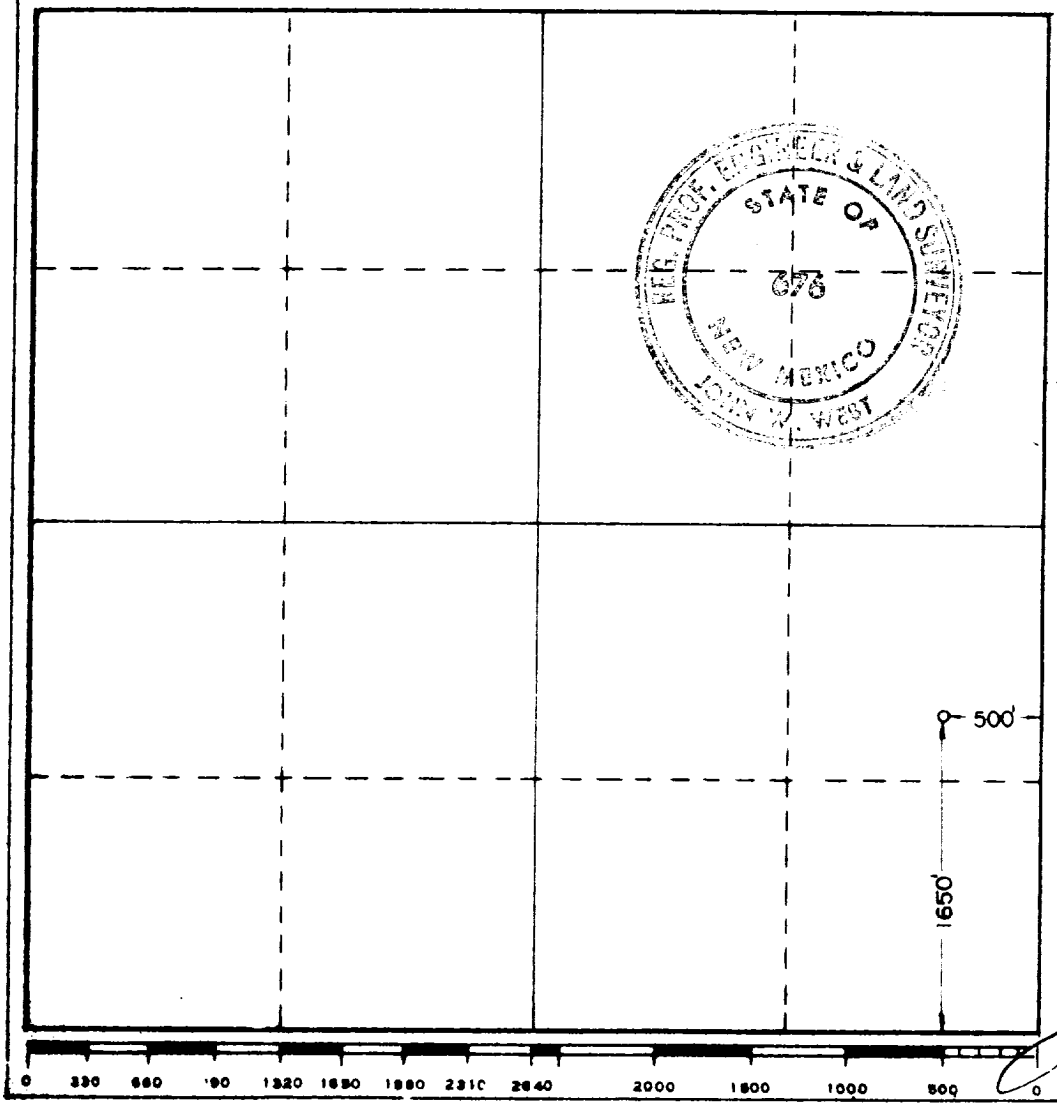
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

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 Commission.



CERTIFICATION

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

Name: Jesse T. Romero

Position: Agent

Company: Brazos Petroleum Co.

Date: November 11, 1980

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: Oct. 25, 1980

Registered Professional Engineer and/or Land Surveyor

Certificate No. JOHN W. WEST 676
PATRICK A. ROMERO 6668
Ronald J. Eidson 3239

APPLICATION TO DRILL

Brazos Petroleum Company
Arco '19' Federal No. 1
Section 19, T-9-S, R-38-E
Lea County, New Mexico

In response to questions asked under Section II B of Bulletin NTL-6, the following answers are provided for your consideration:

1. Location: 1650' FSL & 500' FEL, Section 19, T-9-S, R-38-E, Lea County, New Mexico

2. Elevation Above Sea Level: 3961'

3. Geologic Name of Surface Formation: Alluvium

4. Drilling Tools and Associated Equipment: Conventional rotary drilling rig using mud for the circulation medium

5. Proposed Drilling Depth: 5200'±

6. Estimated Geological Marker Tops: Yates 2920'; San Andres 4200'; Pi Marker 4760'; San Andres porosity 4920'.

7. Mineral Bearing Formation: Water bearing - none; gas bearing - none; oil bearing - San Andres at 4920'.

8. Casing Program: (A) Surface casing - 8 5/8" 24#/ft K-55 new casing. (B) Production casing - 4 1/2" 10.5#/ft K-55 new casing.

9. Setting Depth of Casing and Cement for Same: (A) 8 5/8" casing set at 350'±. Cement will be circulated to surface using 300 sacks of Halliburton Lite with 3# gilsonite/sack, 1/4# flocele/sack, 0.2% $CaCl_2$; followed by 200 sacks Class 'C', 0.2% $CaCl_2$. (B) 4 1/2" casing set at 5200'± and will be cemented with 300 sacks Class 'C', 50-50 pozmix, 8# salt/sack, 3% CFR-2, 1/4# flocele/sack.

10. Pressure Control Equipment: Blowout preventers will be installed on the surface casing. They will be 8" API Series 900 dual preventers adapted for the drilling contractor's 4 1/2" and 5 1/2" drill pipe. They will be capable of closing off on all open areas. The blowout preventers will be hydraulically actuated by an 80-gallon Payne accumulator. The blowout preventers will be tested to 2000 psig after they are installed on the surface casing, prior to drilling out and each time they are removed or rearranged on the wellhead.

11. Proposed Circulation Medium: Mud will be used for the circulating medium for all depths in this well. The following mud properties will be maintained: Viscosity sufficient to clean hole; weight 9.5-10.0 ppg; viscosity through pay zone 45 to 50 for good samples.

12. Testing, Logging and Coring Programs: (A) Testing - All testing will be commenced after the well is drilled and casing has been set and cemented. (B) Logging - At total depth the following logs will be run: 0 - 5200'± sidewall neutron porosity with gamma ray and caliper, dual laterolog, micro-SFL. (C) No coring.

13. Potential Hazards: No abnormal pressure or temperature zones are anticipated. Hydrogen sulfide gas is not expected to be a problem; however, the drilling rig will be so situated as to allow all gas vapors to be expelled away from all personnel gathering sites and engine exhausts.

14. Anticipated Starting Date and Duration of Operations: Commence December 22, 1980. Three weeks to completion on January 12, 1981.

15. Other Facets of Operation: After running 4 1/2" casing, cased hole gamma ray collar correlation logs will be run from total depth to 4200'±. The San Andres porosity pay will be perforated and acidized. The well will then be swab tested and a pumping unit will be installed to potential and produce the well.