COPY TO O. C. C.

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-025-26927

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: LC 054667

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: El Paso Tom Federal

9. WELL NO.: 4

10. FIELD AND POOL, OR WILDCAT: Langlie Mattix (D)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 33, T-25-S, R-37-E, NMPM

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

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

2. NAME OF OPERATOR: Alpha Twenty-One Production Company

3. ADDRESS OF OPERATOR: 2100 First National Bank Building, Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1650 FWL & 2310 FSL, Section 33
At proposed prod. zone:

12. COUNTY OR PARISH: Lea — 13. STATE: New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: NW corner of Lease borders SE corner of City limits

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 990

16. NO. OF ACRES IN LEASE: 440

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.: 990'

19. PROPOSED DEPTH: 3300'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 2994 G.L. (3004 RKB)

22. APPROX. DATE WORK WILL START*: 04-01-80

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
15	13 3/8	33	30	20 (circulate)
12 1/4	8 5/8	28	400	400 (circulate)
7 7/8	5 1/2	17	3300	600 (circulate)

A 10 3/4-inch 2000-psi rotating head will be used while drilling the surface hole. Before drilling out from under the surface pipe, the well will be equipped with a 3000-psi 10-inch Series 900 double-ram hydraulic BOP system.

NOTE: For other necessary BOP data required with the APD, see the attached drilling prognosis.

RECEIVED
JAN 28 1980
U. S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

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 Tommy Phipps TITLE Executive Vice President DATE 01-18-80

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
ACTING DISTRICT ENGINEER

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

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.
Alpha Twenty One Production Company	El Paso Tom Federal	4

Unit Letter	Section	Township	Range	County
K	33	25 South	37 East	Lea

Actual Footage Location of Well: 2310 feet from the South line and 1650 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
2993.8	Seven Rivers - Queen	Langlie Mattix	40 Acres

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

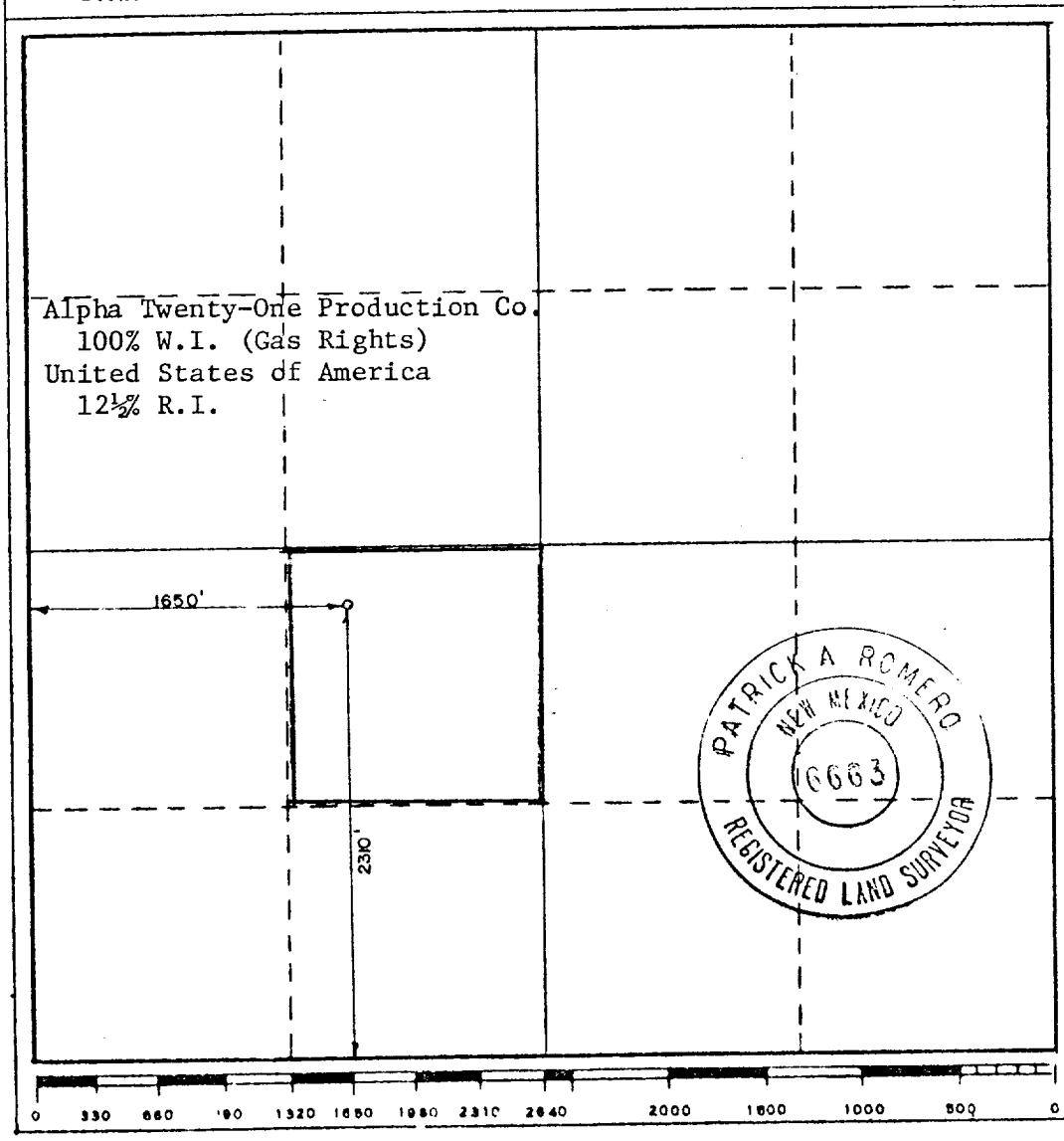
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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: Tommy Phipps

Position: Executive Vice President

Company: Alpha Twenty-One Prod. Co.

Date: 1-18-80

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: 12-27-1979

Registered Professional Engineer and/or Land Surveyor

Patrick A. Romero

Certificate No. JOHN W. WEST 676
PATRICK A. ROMERO 6663
Ronald J. Eidson 3239

DRILLING PROGRAM

I. Well Identification:

Lease Name: El Paso Tom Federal

Well No.: 4

Location: 1650 FWL & 2310 FSL Section 33

T-25-S, R-37-E

County: Lea

State: New Mexico

Elevations: 2994 G. L. (3004 RKB)

II. Drilling Objective:

Zone: Seven Rivers - Queen

Total Depth: 3300

Pool Name: Langlie Mattix

Productive Interval: 3020-3250

III. Formation Tops:

Zone	Tops		Gross Interval Drilled	Probable Fluid Production
	Drilling Depth	Subsea Depth		
Rustler Anhydrite	920	+2074	230	
Salado Salt	1150	+1844	1240	
Tansil	2390	+ 604	150	
Yates	2540	+ 454	300	
Seven Rivers	2840	+ 154	280	Hydrocarbons
Queen	3120	- 126	180	Hydrocarbons
TOTAL DEPTH	3300	- 306	3300	---

IV. Hole Size:

Hole	Bit Size	T.D.	Gross Interval
Conductor	15	40	40
Surface	12 1/4	400	360
Production	7 7/8	3300	2500

V. Casing Program:

A. Casing Design

String	Casing Size O.D.	Wt.	Grade	Threads	Amount	Cond.
Conductor	13 3/8	33	B	8 Rd	30	New
Surface	8 5/8	28	B	8 Rd	400	New
Production	5 1/2	17.0	J-55	8 Rd	3300	New

B. Float Equipment:

Surface Casing: 8 5/8-inch guide-shoe and 8 5/8-inch insert float.

Production Casing: 5 1/2-inch guide-shoe and 5 1/2-inch float collar with automatic fill.

C. Centralizers:

Surface Casing: One centralizer at the float collar and one centralizer two joints above float collar.

Production Casing: 1 . a total of 8 centralizers. 1 ce one centralizer at the guide shoe and one centralizer at the float collar with the remaining being placed 80 to 90 feet apart or every other joint.

D. Wellhead Equipment:

Larkin 8 5/8 x 5 1/2 Fig 92 Casinghead. Larkin 5 1/2 x 2 3/8 Type TH tubinghead complete with slips and bell nipple.

VI. Mud Program

A. Surface Hole:

Drill surface hole with a fresh water gel (approximately 8.5 lb/gal) while maintaining a high enough viscosity to adequately clean hole. Add paper as needed to control excess seepage.

Before drilling below surface pipe, jet cuttings out of working pit into reserve pit and then switch from circulating through working pit to circulating through reserve pit.

B. Production Hole:

Before entering salt section, switch mud system to a saturated salt system (10.1 lb/gal). At 2500, switch back out of reserve pit and back into working pit. Also, at this point, start adding starch and brine gel to lower water loss and raise viscosity. The mud shall have a water loss of 10 cc/30 min and a viscosity of 34 to 36 sec. before

reaching 2600.

In order to protect the drill string, sufficient lime shall be added to the mud to maintain a safe PH level.

VII. Cementing Program

A. Surface Pipe:

Cement surface pipe with approximately 400 sacks (or as required) of API Class-C cement containing 2% Calcium Chloride. Before resuming drilling operations, allow cement to set for a sufficient time to gain a 500-psi compressive strength (18 hours). Also, before drilling plug, the pipe shall be tested to 700 psi for 30 minutes.

B. Production String:

Cement long string with approximately 350 sacks API Class-C cement containing 3% Halliburton Econolite mixed to a slurry weight of 11.3 lb/gal followed by 250 sacks of a 50-50 blend of Pozmix "A" and API Class-C cement containing 18% salt and 2% gel and having a slurry weight of 14.1 lb/gal. Pump 30 barrels of water ahead of the cement to help remove the mud filter cake.

Once top plug is bumped, pressure test casing to 1500 psi.

The total specified cement volume of 600 sacks provides for an excess that

should be sufficient to bring the cement top back to the surface. Before the cement job is actually performed, the required cement volume will be checked against the open hole caliper log to determine the actual amount of cement necessary to bring the cement back to the surface.

VIII. Formation Evaluation:

A. Drilling Rate:

1. The drilling rate shall be monitored with a geolograph from the surface to total depth.

2. As part of their farmout agreement, El Paso Natural Gas Company requires that the penetration rate be tabulated in 10-feet increments over the entire hole.

B. Well Cutting Samples:

One set of well cutting samples shall be gathered every 10 feet from the surface to total depth. Each sample is to be cleaned, bagged, and tagged and then grouped into bundles of ten samples per bundle with one bundle representing each 100-feet drilled.

After the drill cuttings have been reviewed by the wellsite geologist, they shall be delivered weekly to Midland Sample Cut, 704 S. Pecos Street, Midland, Texas.

C. Mud Logging: None

D. Drill-Stem Testing: None

E. Coring: None

F. Well Logging:

Open-Hole Logs

Log	Interval	
	2" = 100'	5" = 100'
CDL-Neutron-GR	T.D. - Surface	T.D. - 2200
Guard - Forxo	T.D. - 2200	T. D. - 2200

Cased-Hole Logs

Log	Interval	
	2" = 100'	5" = 100'
GRN-CCL	T.D. - 2200	T.D. - 2200

Log Distribution

Company	No. of Copies	
	Field Prints	Final Prints
Alpha Twenty-One Production Company 2100 First National Bank Building Midland, Texas 79701	8	8
United States Geological Survey P. O. Box 1157 Hobbs, New Mexico 88240	0	6
Mr. O. L. Dilworth El Paso Natural Gas Company 1800 Wilco Building Midland, Texas 79701	3	3

X. Blowout Preventer System:

A 10 3/4 2000-psi rotating head will be used while drilling the surface hole. Before drilling out from under the surface pipe, the well will be equipped with a 3000-psi 10-inch series 900 double-ram hydraulic preventer. The blowout preventer shall be used through the running of the production string.

Attached is a diagram of the required BOP system.

X. Hazardous Zones:

None anticipated.

XI. Duration of Operations:

The total elapsed time required for drilling and completing the subject well is expected to be thirty days.

ROTARY TABLE

Flow line will have to be made to fit UNDER Rotary.