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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease
STATE ☒ FEE ☐

5. State Oil & Gas Lease No. B-514

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL ☒ DEEPEN ☐ PLUG BACK ☐

b. Type of Well
OIL WELL ☒ GAS WELL ☐ OTHER SINGLE ZONE ☒ MULTIPLE ZONE ☐

7. Unit Agreement Name

8. Farm or Lease Name STATE L

9. Well No. 20.

2. Name of Operator TENNECO OIL COMPANY

3. Address of Operator BOX 1931 MIDLAND, TEXAS

10. Field and Pool, or Wildcat GRAYBURG JACKSON

4. Location of Well UNIT LETTER C LOCATED 2173 FEET FROM THE [illegible] LINE AND [illegible] FEET FROM THE [illegible] LINE OF SEC. 20 TWP. 17-S RGE. 29-E NMPM

12. County EDDY

19. Proposed Depth	19A. Formation	20. Rotary or C.T.
2900	SAN ANDRES	ROTARY

21. Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
3550 GL	IN EFFECT	LEATHERWOOD DRLG Co	UPON APPROVAL

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
11"	8 5/8	28#	360	SUFF. TO CIRCULATE	
6 3/4"	4 1/2	10.5#	2900	SUFF TO COVER ZONES OF INT.	

RECEIVED

MAY 20 1966

O. C. C.
ARTESIA, OFFICE

SEE ATTACHED PROGNOSIS

**APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED,**

EXPIRES 8-17-66

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 AW Lang A.W. LANG Title DIST PROD SUPT Date MAY 18, 1966

(This space for State Use)

APPROVED BY ML Armstrong TITLE [illegible] DATE May 20 1966

CONDITIONS OF APPROVAL, IF ANY:

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

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator TENNECO OIL COMPANY		Lease STATE "L"		Well No. 20
Unit Letter C	Section 28	Township 17 SOUTH	Range 29 EAST	County EDDY

Actual Footage Location of Well: 2173' feet from the WEST line and 467 feet from the NORTH line

Ground Level Elev:	Producing Formation SA	Pool Gbr. Jackson	Dedicated Acreage: 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.) ______

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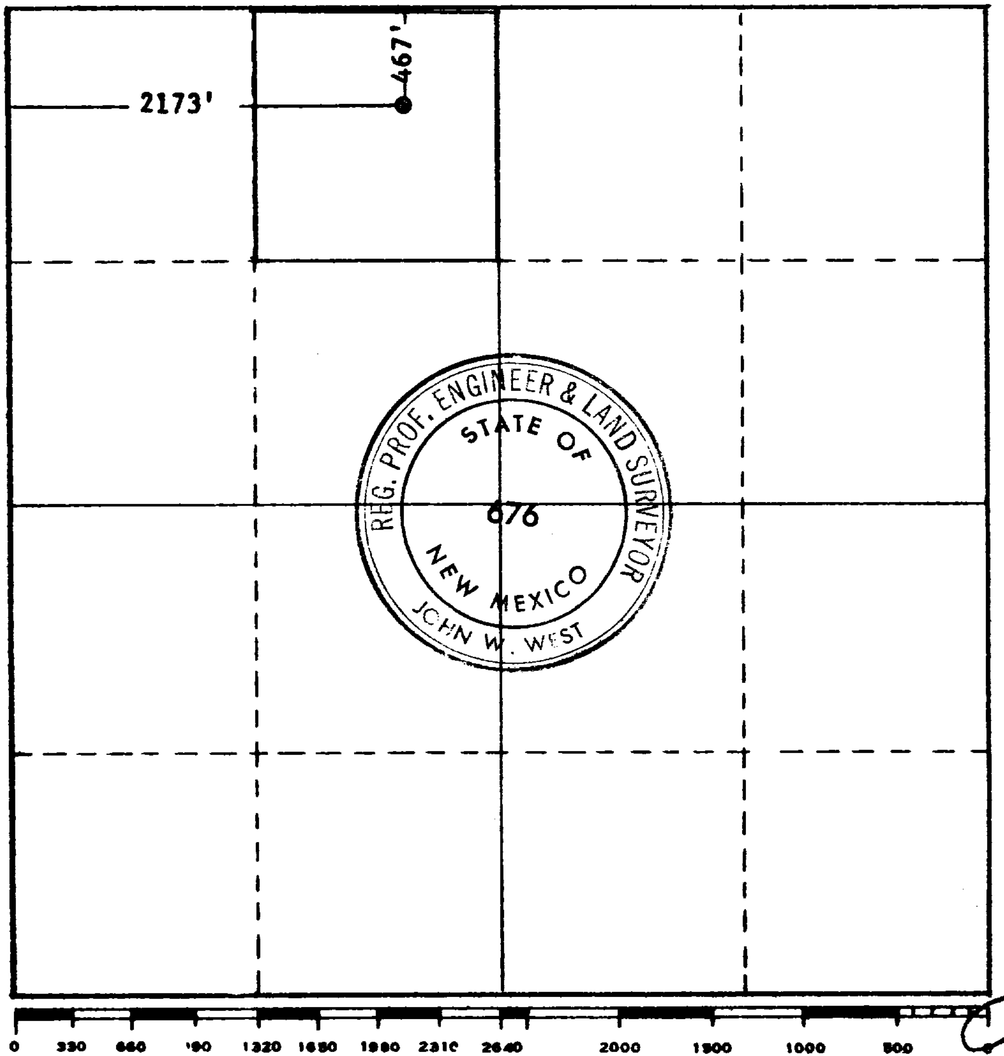
MAY 20 1966
O. C. C.
ARTESIA, OFFICE

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 AW Lang A.W. LANG
Position Dist. Prod Supt
Company Tenneco Oil Co
Date May 18, 1966

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 MAY 13, 1960

Registered Professional Engineer and/or Land Surveyor
John W West

Certificate No. N.M.P.E. & L.S. 676

TENNECO OIL COMPANY

DRILLING PROCEDURE

MIDLAND DISTRICT **SOUTHWESTERN DIVISION**

LEASE: State "L" **WELL:** No. 20

FIELD: Grayburg-Jackson **STATE:** New Mexico

LOCATION: 467' FNL & 2173' FWL, Section 28,
T-17-S, R-29-E, Eddy County, New Mexico

PROJECTED TD: 2900'

TYPE OF WELL: Oil, Pumping **EST. ELEV.:** 3550 GL

DRILLING, CASING AND CEMENTING PROGRAM

1. Drill 11" hole to 360' with OSC or equivalent.
2. Run and cement 8-5/8", 24#/ft., H-40, ST&C casing to T.D. Cement with class A saturated salt cement. If surface hole is dry drilled because of lost circulation, run a cement basket above the lost circulation zone and fill from the top. Run bar centralizers on guide shoe and bottom two joints. Use guide shoe and insert float.
3. If float holds, release pressure immediately. Center 8-5/8" casing, nipple up and install rotating head and BOP. After 12 hrs. from plug down, go in hole with drill pipe and bit, test casing to 800 psi for 30 min. Drill float collar and cement with water to guide shoe. Blow hole dry with air and drill with air and/or mist to T.D.
4. Drill 6-3/4" hole to T.D. Use W7R-2 or equivalent for first two bits, then run RG7AJ's or equivalents to T.D. Run insert-type reamer at 30' above bit to T.D. Complete drilling program to be furnished to rig.
5. Hole may become wet below 1700'±. Be prepared to mist at this depth.
6. Run 4-1/2", 10.5# casing to T.D. Use guide shoe and float collar. Use centralizers through productive zone.
7. Cement with sufficient class C with 16% gel and 3% salt to reach 2000' (no excess) and tail in with latex-class C to reach 100' above top productive zone (consult Geologist).
8. If float holds, release pressure, set slips & release rig. Run temperature survey after 8 hrs.

[illegible]

CASING DESIGN

a. CONDUCTOR ________ in. O.D.

Interval	Length	Weight	Grade	Thread	Csg. Cost/Ft.	Cum. Cost

b. SURFACE 8-5/8 in. O.D.

Interval	Length of Int.	Wt. #/Ft.	Interval Weight	Cum. Weight	Grade	Joint	Col.	Design Factor			Casing Cost/Ft.	Cum. Cost
								Ten.	Top Burst	Btm Burst		
0-360	360	28			H-40	ST&C						

c. INTERMEDIATE 4-1/2 in. O.D. Max BHP ________

Interval	Length of Int.	Wt. #/Ft.	Interval Weight	Cum. Weight	Grade	Joint	Col.	Design Factor			Casing Cost/Ft.	Cum. Cost
								Ten.	Top Burst	Btm Burst		
0-2900	2900	10.5			J-55	8rd.						

d. LINER ________ in. O.D.

Interval	Length of Int.	Wt. #/Ft.	Interval Weight	Cum. Weight	Grade	Joint	Col.	Design Factor			Casing Cost/Ft.	Cum. Cost
								Ten.	Top Burst	Btm Burst		

0-360	Spud mud of bentonite, lime for viscosity as needed. If circulation is lost dry drill to casing point.
360-T.D.	Air and/or mist as needed.

Notes:
1) In the event that hole conditions necessitate going to fluid - brine will be used.
2) Several air or CO2 blows may occur in the salt section and to a depth of 1400'.
3) Water may occur at 1700'± and misting may be necessary below this depth.
4) Gas may be encountered in Metex sand at 2280'±.

[illegible]

1. Two Cameron 900 blowout preventers as per Company specifications.

2. When nippling up, test blowout preventer and manifold to full working pressure with cold water, or as specified by Company representative.

3. Operate blowout preventers at least once each day, or as Company representative requires.

4. An extra set of drill pipe rams will be required on location at all times while drilling or completing.

5. All choke manifolds, lines and valves will be located at the side of and away from substructure.

DRILL PIPE MEASUREMENTS

1. Drill pipe will be tallied at all coring, testing, logging and casing points.

[illegible]

1. Deviation surveys shall be taken on every trip or every 500', whichever is first. All straight hole surveys will accompany AAODC tour sheet reports.

2. Deviation should not change more than 1½° in any 100'. If deviation exceeds 2° per 100', hole shall be plugged back and straightened.

3. Maximum deviation shall be allowed as follows:

0 - 500	½°	4000 - 6000	4°
500 - 1000	1°	6000 - 8000	5°
1000 - 2000	2°	8000 - 10000	6°
2000 - 4000	3°	12000 - 14000	8°

DRILLING TIME

1. A recorder with torque, hook load, and rate of penetration will be used.

2. Record 1' drilling time on recorder from 0 to T.D. .

3. Record 10' drilling time from 1800 to T.D. on Company forms. Mail each sheet as soon as recorded with Daily Drilling Reports.

LOGGING

1. Sonic or density T.D. to surface.

SAMPLES

As directed by geologist

CORES

None

DRILL STEM TESTS

None

[illegible]

Salt Top	288	Premier Sand	2420
Salt Base	688	San Andres	2443
Yates	688	Oolitic	2618
Queen	1758		
Metex	2280		

[illegible]

1. The AAODC Daily Drilling Report will be filled out completely and neatly each 8-hour tour. One clear and legible copy will be mailed daily to Tenneco Oil Company. Mail Company drilling sheets as soon as each sheet is finished with Daily Drilling Report.

2. A daily report sheet and a cost sheet will be furnished by the operator for the well. The contractor's tool pusher will keep these forms current and complete. The daily cost, total cumulative cost and cumulative mud cost will be given daily along with the Tenneco morning report. At the conclusion of the well, the cost forms will be mailed to Tenneco Oil Company, P. O. Box 1031, Midland, Texas.

3. The morning report shall be called to Tenneco's Midland office as soon after 8:00 C.S.T. each weekday morning as practical. Phone number is MU 3-4621, area code 915.

4. For notifications at other than office hours, call:

LOGGING:		EMERGENCIES:	
James Eaton	OX 4-7668	A. R. Gibson	MU 4-7545
B. E. Desadier	MU 4-5390	A. W. Lang	MU 2-3010

PREPARED BY:

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