

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

DEC 8 1981  
(Other Instru  
No. 1)

30-015-23889

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

2. NAME OF OPERATOR  
Tenneco Oil Company (PH 512-734-8161)

3. ADDRESS OF OPERATOR  
6800 Park Ten Bldg, San Antonio, Tx. 78213

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
At surface  
1980' FWL & 660' FSL, S19, T21S, R26E Amended location  
At proposed prod. zone  
Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
6 1/2 mi. northwest of Carlsbad

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  
80

17. NO. OF ACRES ASSIGNED TO THIS WELL  
320

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH  
11,200'

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
3413.8 GL

22. APPROX. DATE WORK WILL START\*  
Sept. 1, 1981

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" new	54.5# K-55 STC	+350'	cement to circulate
12 1/2"	8 5/8" new	32# K55STC	-2200'	cement to circulate
7 7/8"	5 1/2" new	17# N-80LTC	11,072'	cement to top +7000'

1. Set 20" conductor pipe @ +40' from surface w/rathole-driller.
2. Drill 17 1/2" hole to +350. (Refer to Note B)
3. Run and cmt, 13 3/8" 54.5# K-55 STC csg. Cement must return to surface. Prepare to 1" down backside if necessary. WOC 8 hrs. total as per NMOCC, proceed w/NU immediately after cmt. Call NMOCC prior to run surface csg.
4. Cut off 13 3/8" csg. NU WKM 13 5/8" 3M type "S" csg. head. SOW. Test csg, head to 1/2 of casing collapse. Weld needs to be able to accommodate to 12 1/2" bit.
5. NU 13 3/8" 5M BOPE, Test to 500 psi w/rig pump.
6. PU 12 1/2" bit and at least 12-8" DC's. Shock sub is advisable but use no reamers due to dry drilling possibilities. Drill 12 1/2" hole to +2200'.
7. Run and cmt, 8 5/8" 32, 0# K-55 STC casing. Cement needs to be circulated to surface Prepare to 1" if necessary; WOC 8 hrs, as per NMOCC, NU while WOC.
8. Set WKM 13 5/8" type "SR" csg slips and cut off 13 3/8" csg. NU WKM 13 5/8" X 11" 3M type "SF" csg. hd. spool. Test head to 1265 psi or 1/2 casing collapse.

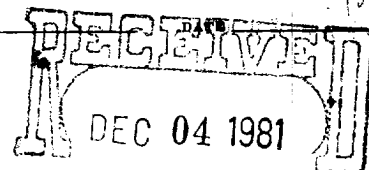
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer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

SIGNED: *[Signature]* TITLE: Division Drilling Engineer DATE: Dec 3, 1981

(This space for Federal or State office use)

PERMIT NO. APPROVED APPROVAL DATE

APPROVED BY: JAMES A. GILLHAM DISTRICT SUPERVISOR  
DATE: DEC 4 1981



## Instructions

**General:** This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

**Item 1:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

**Items 15 and 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

**Item 22:** Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

★ U.S. GOVERNMENT PRINTING OFFICE : 1963-O-711-306

9. NU 5M BOPE. Test Choke manifold and lines and BOPE to 3000 psi. Test Hydril to 1500 psi.
10. PU 7 7/8" bit and BHA. RIH to float collar and test casing to 1000 psi minimum.
11. Drill to +9000'. Commence mud up thru steel pits. Test BOP stack and choke lines as in step 9.
12. Drill to +11,072'. (TD will be picked by mud logger)
13. Log as per geological engineer, Run Schlumberger. Reformation tester. RIH to condition hole and WO orders.
14. Run 5 1/2" 17.0# N-80 LTC or P & A as per GE.
15. Set slips and NU WKM 11" 5M X 7 1/16" 5M type "U" tubing
16. RD MORT. Completion Prognosis to follow.

Gas for the acreage is dedicated.

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 <b>Tenneco Oil Co.</b>		Lease <b>Federal FW. 19</b>		Well No. <b>2</b>	
Unit Letter <b>N</b>	Section <b>19</b>	Township <b>21S</b>	Range <b>26E</b>	County <b>Eddy</b>	
Actual Footage Location of Well: <b>660</b> feet from the <b>SOUTH</b> line and <b>1980</b> feet from the <b>WEST</b> line					
Ground Level Elev. <b>3441.9</b>	Producing Formation <b>Morrow</b>	Pool <b>Catclaw Draw</b>	Dedicated Acreage: <b>640</b> 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 Communitization Agreement

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.

L-6815-1 W.I.-Tenneco-87.5% Holly Energy, Inc.-10.9375 Read & Stevens, Inc.- 1.5625 R.I.-State of New Mexico	NM-0106774-C W.I. Tenneco-87.5% Holly-10.9375 Read & Stevens- 1.5625 R.I. -State of New Mexico	NM-0106774-A W.I.-Tenneco- 87.5% Holly Energy- 10.9375 Read & Stevens 1.5625 R.I. - United States
K-6262 W.I. - Tenneco- 87.5% Holly - 10.9375 Read & Stevens- 1.5625 R.I. - State of New Mexico	NM-84 W.I. - Inexco Oil Co. R.I. - United States	



CERTIFICATION

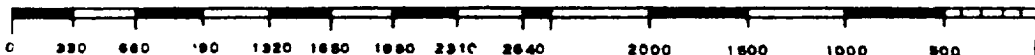
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

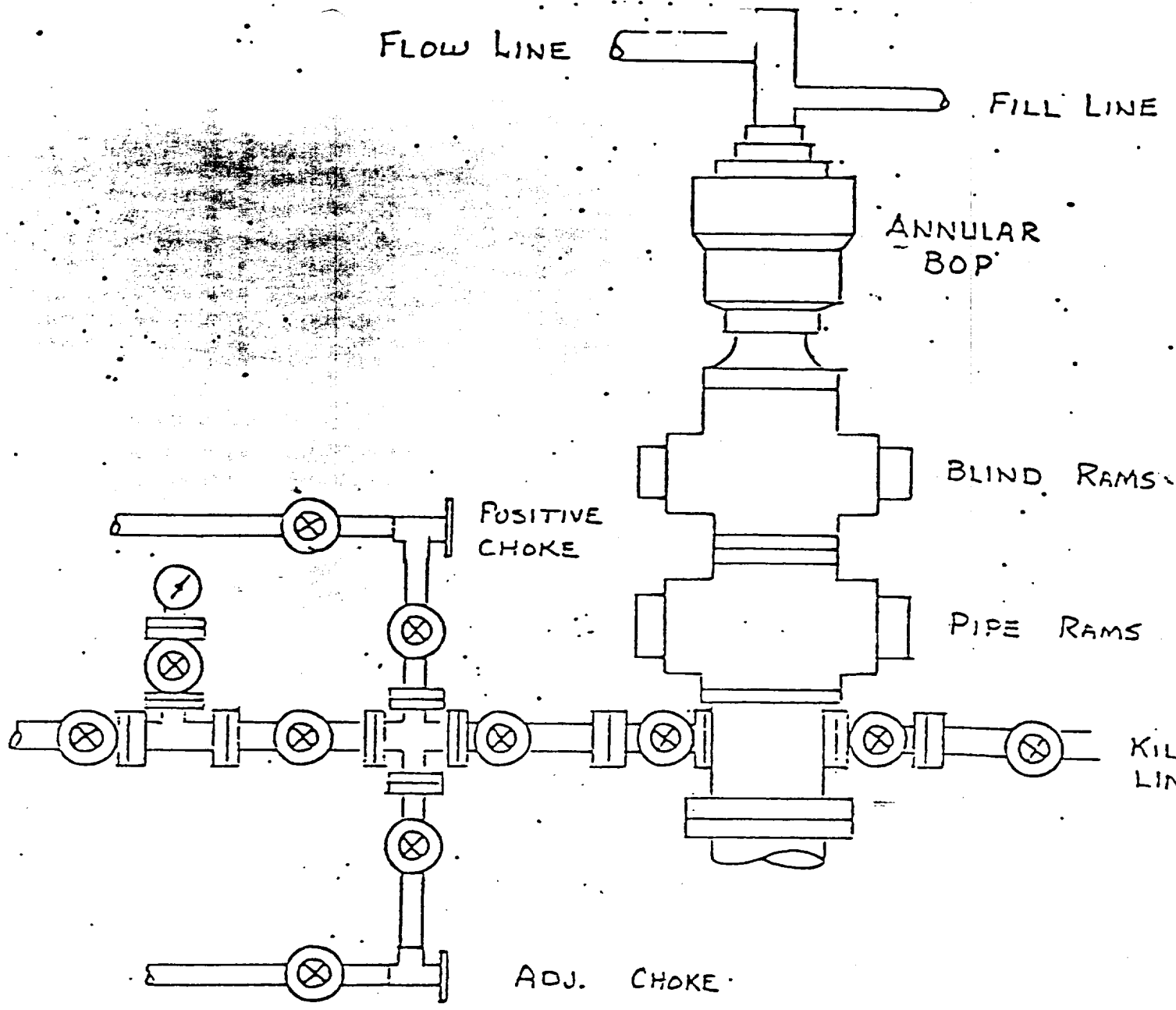
*[Signature]*  
Name  
**MOSS BANNERMAN**  
Position  
**Division Drilling Engineer**  
Company  
**Tenneco Oil Company**  
Date  
**December 03, 1981**

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  
**6-26-81**  
Registered Professional Engineer  
and/or Land Surveyor

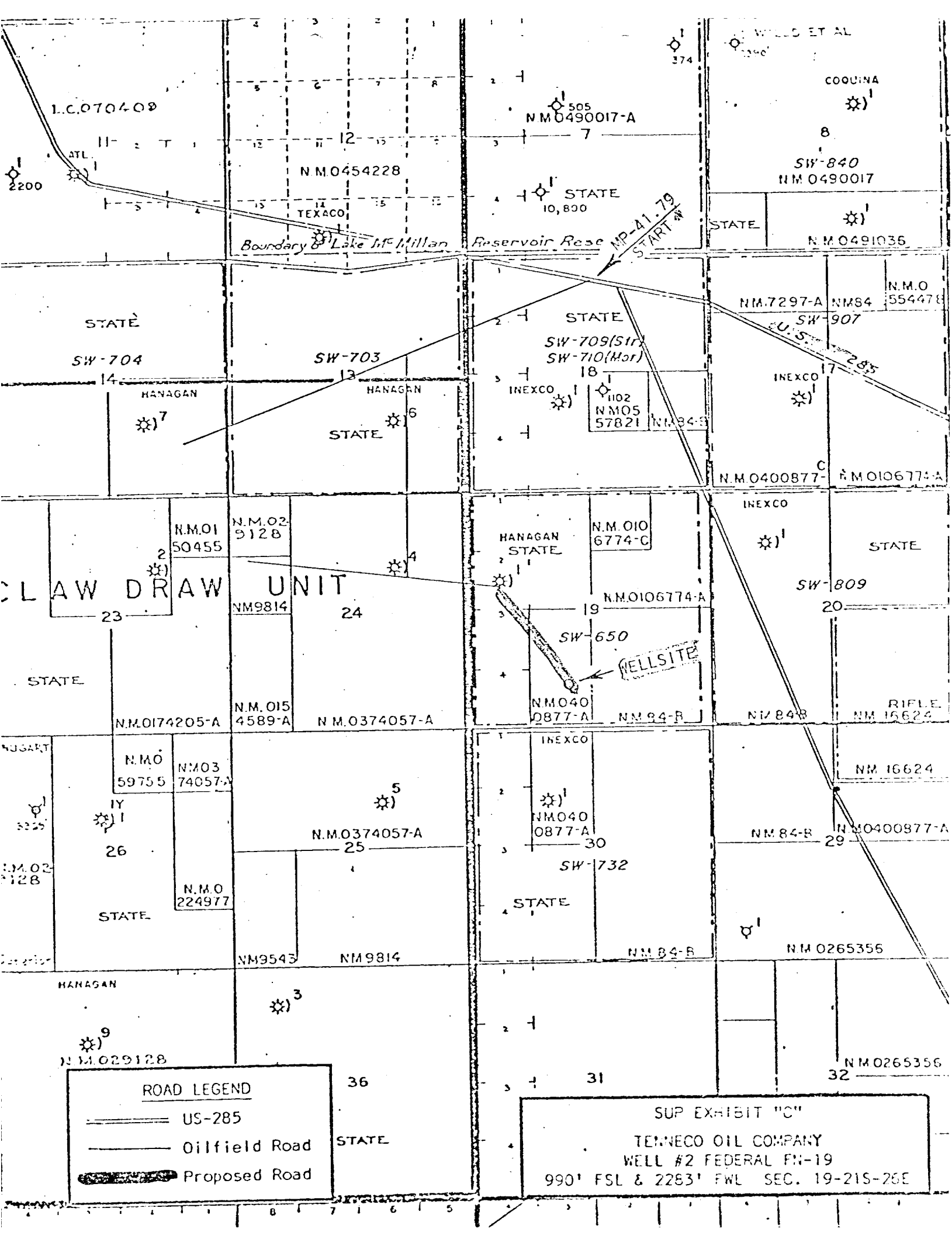
*[Signature]*  
Certificate No. **JOHN W. WEST 676**  
**PATRICK A. ROMERO 6463**  
**Ronald J. Eidson 3239**



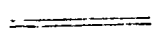

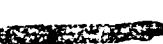


This is to be 3000 psi wp, which is adequate, that will be used on the 11" and 7 7/8" hole. This is the minimum possible BOP stack that will be used. Tenneco may choose to use more equipment and higher pressure.

Federal "FN" 19  
 Well No. 2  
 Eddy County, New Mexico



**ROAD LEGEND**

-  US-285
-  Oilfield Road
-  Proposed Road

**SUP EXHIBIT "C"**  
**TENNECO OIL COMPANY**  
**WELL #2 FEDERAL FN-19**  
 990' FSL & 2283' FWL SEC. 19-21S-26E

**C LAW DRAW UNIT**

**WELLSITE**

*Boundary of Lake McMillan Reservoir Rese*

MP-41.79  
START

STATE  
SW-704

SW-703

STATE  
SW-709(Sir)  
SW-710(Mor)

NM.7297-A NMS4 554478  
SW-907

HANAGAN

HANAGAN

INEXCO  
1102  
N.M.O.5  
57821

INEXCO

N.M.O.400877- C N.M.O.10677-A

N.M.O.1  
50455

N.M.O.2  
9128

HANAGAN  
STATE

N.M.O.10  
6774-C

INEXCO

STATE

23

NM9814

24

N.M.O.106774-A

SW-809

20

STATE

N.M.O.174205-A

N.M.O.15  
4589-A

N.M.O.374057-A

N.M.O.40  
0877-A

N.M.84-B

N.M.84-B

RIFLE  
N.M.16624

HUGART

N.M.O.  
59755

N.M.O.3  
74057-A

INEXCO

N.M.16624

3225

26

5

N.M.O.374057-A

N.M.O.40  
0877-A

N.M.84-B

N.M.O.400877-A

N.M.O.2  
9128

26

N.M.O.  
224977

SW-732

STATE

29

N.M.O.265356

3225

HANAGAN

NM9543

NM9814

N.M.84-B

9

N.M.O.29128

36

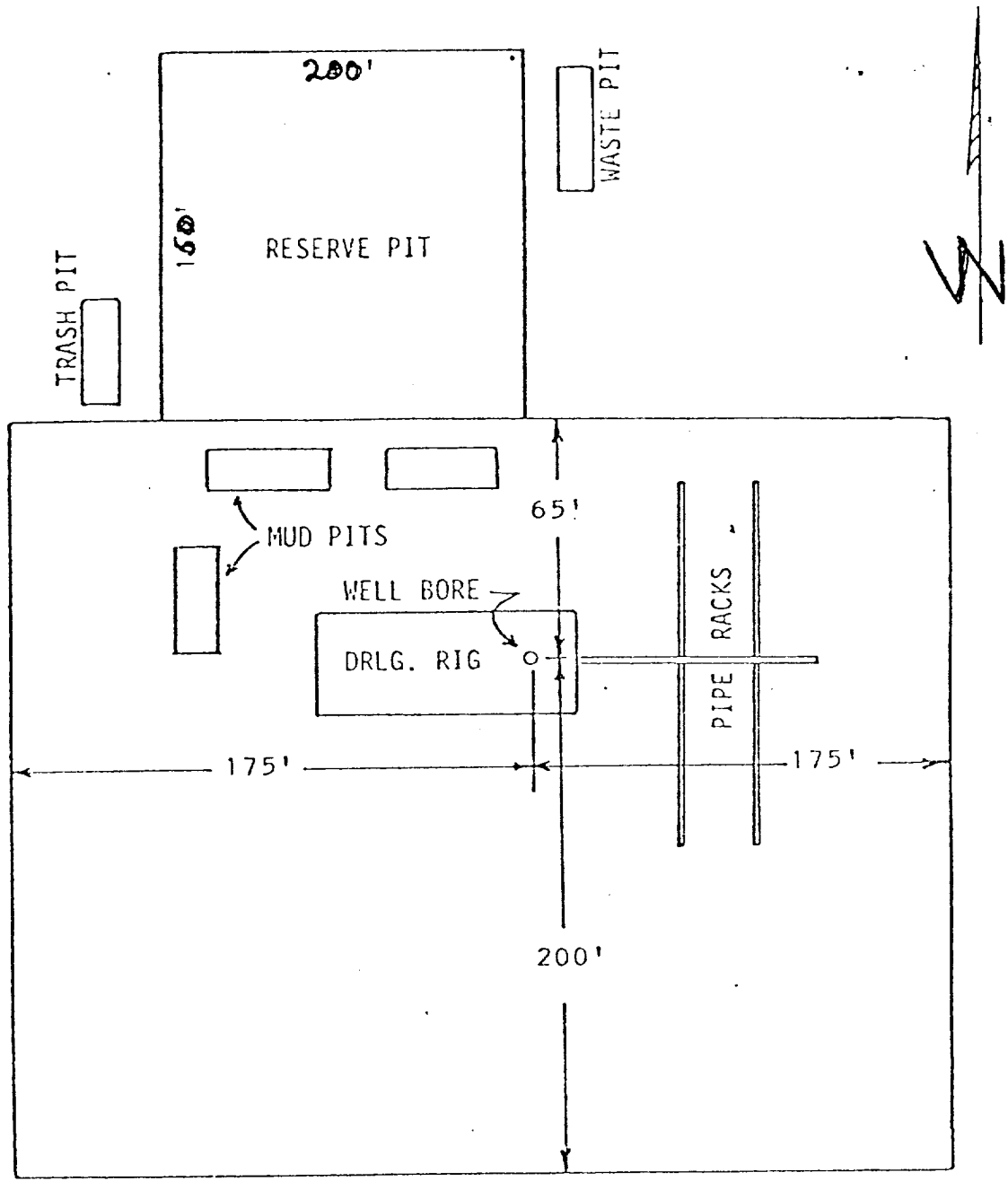
31

N.M.O.265356

32

STATE

990' FSL & 2283' FWL SEC. 19-21S-26E



SUP EXHIBIT "D"  
 TENNECO OIL COMPANY  
 WELL #2 FEDERAL FN-19  
 990' FSL & 2283' FWL SEC. 19-21S-26E