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Form 9-331 C
(May 1963)

N.M.O.C.D. COPY

SUBMIT IN PLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-005-60770

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM-14982

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Stancel Federal

9. WELL NO.: 3

10. FIELD AND POOL, OR WILDCAT:

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 22, T5S, R24E

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

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

RECEIVED
APR 19 1980
ROSWELL, OFFICE

2. NAME OF OPERATOR: MESA PETROLEUM CO

3. ADDRESS OF OPERATOR: 1000 VAUGHN BUILDING/MIDLAND, TEXAS 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FSL & 1980' FWL
At proposed prod. zone: Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 37 miles N/NE of Roswell

12. COUNTY OR PARISH: Chaves

13. STATE: N. Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1980/660

16. NO. OF ACRES IN LEASE: 1,000

17. NO. OF ACRES ASSIGNED TO THIS WELL: 160

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 3100'

19. PROPOSED DEPTH: 4400'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 4031.4' GR

22. APPROX. DATE WORK WILL START*: 8/16/80

23. 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"	48#	300'	320 "C"
12-1/4"	8-5/8"	24#	1600'	300 HLW/200 "C"
7-7/8"	4-1/2"	10.5#	4400'	460 HLW/300 POZ "C"

Propose to drill 17-1/2" hole to 300', cement 13-3/8" casing, reduce hole to 12-1/4" drill to 1600' without BOPs or wellhead. After cementing 8-5/8" casing at 1600' (circulated to surface) and installing bradenhead, will nipple up 10" API 3000 psi BOPs and drill 7-7/8" hole to total depth of 4400'. Drilling fluid will consist of fresh water gel and soda ash from surface to 1600' and fresh water with caustic soda (Ph 9.0-9.5) and chemicals for corrosion control to 3500' then mud up with starch and soda ash to total depth. After log evaluation, 4-1/2" casing may be run to total depth and cemented to surface.

Gas sales are not dedicated.

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 R. E. Mathis TITLE Regulatory Coordinator DATE 7/16/80

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY (Orig. Sgd.) PETER W. CHESTER TITLE ACTING DISTRICT ENGINEER DATE AUG 15 1980

CONDITIONS OF APPROVAL, IF ANY:

*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.
Mesa Petroleum Co.	Stancel Federal	3

Unit Letter	Section	Township	Range	County
K	22	5 South	24 East	Chaves

Actual Footage Location of Well:
1980 feet from the South line and 1980 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
4031.4	Abo	Undesignated	SW/4 160 Acres

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

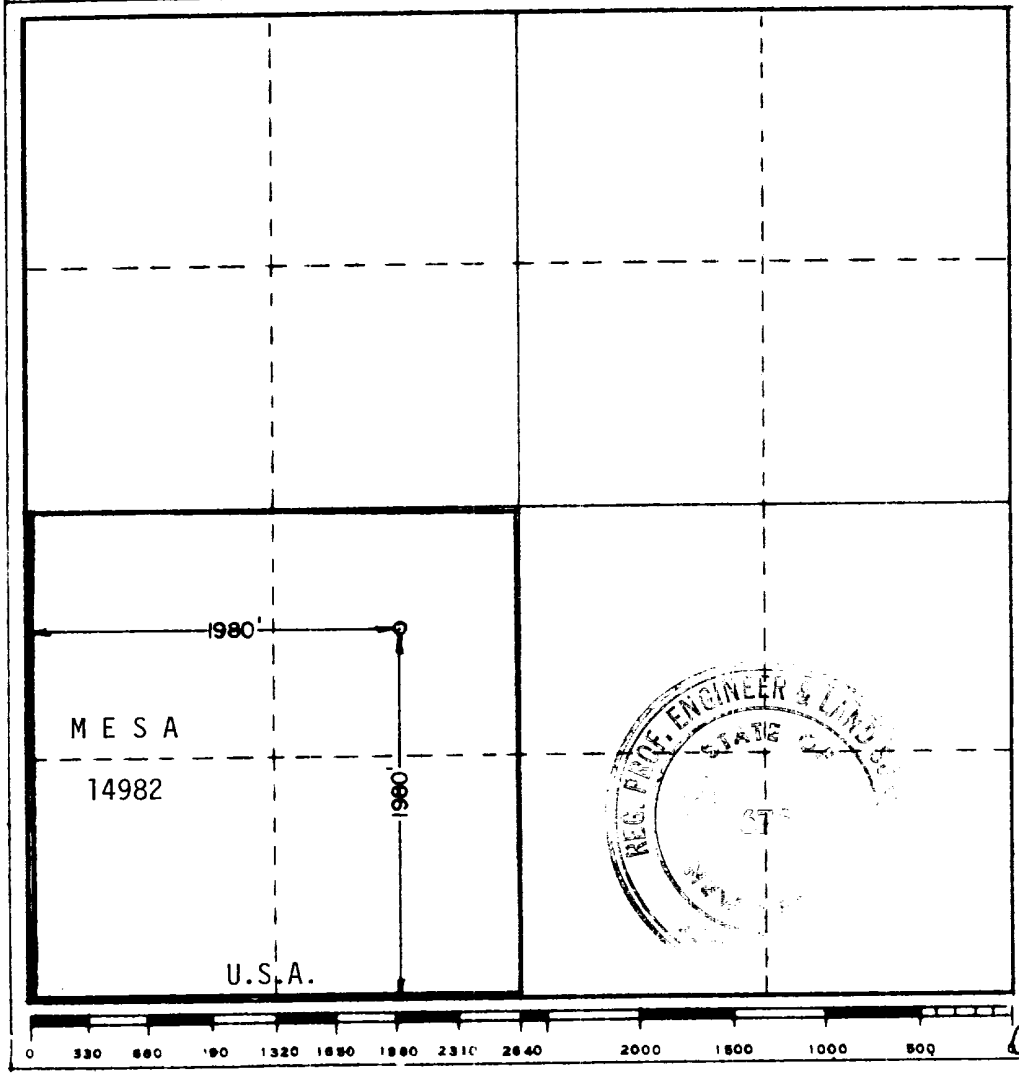
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.

R. E. Mathis

Name: R. E. MATHIS

Position: Regulatory Coordinator

Company: Mesa Petroleum Co

Date: July 16, 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: July 8, 1980

Registered Professional Engineer and/or Land Surveyor

John W. West

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

United States Department of the Interior

GEOLOGICAL SURVEY
P. O. Drawer U
Artesia, New Mexico 88210

August 14, 1980

Mesa Petroleum Company
1000 Vaughn Building
Midland, Texas 79701

MESA PETROLEUM COMPANY Stancel Fed No. 3 1980 FSL 1980 FWL Sec. 22 T.5S R.24E Chaves County Lease No. NM-14982
Above Data Required on Well Sign

Gentlemen:

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 4,400 feet to test the Abo formation is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL LEASES, dated July 1, 1978.

2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the SURFACE USE PLAN and this approval including the GENERAL REQUIREMENTS.

3. All access roads will be limited to a 12 foot wide driving surface, excluding turnarounds. Surface disturbance associated with road construction will be limited to 20 feet in width.

4. Submit a Daily Report of Operations from spud date until the Well Completion Report (form 9-330) is filed. The progress report should be not less than 8" x 5" in size and each page should identify the well.

5. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Requirements. The color used should simulate Sandstone Brown (Federal Standard No. 595A, color 20318 or 30318).

6. Notify the Survey by telephone 24 hours prior to spudding well.

7. Cement behind the 13-3/8" casing must be circulated.

8. Please have anyone contacting the Survey in regard to this well to identify the well with all of the information required above for the well sign.

Sincerely yours,

(Orig. Sgd.) PETER W. CHESTER

Acting District Engineer

APPLICATION FOR DRILLING

MESA PETROLEUM CO
STANCEL FEDERAL WELL NO. 3
CHAVES COUNTY, NEW MEXICO

LEASE: NM-14982

July 16, 1980

In conjunction with Form 9-331 C, Application for Permit to Drill subject well, the following items of pertinent information are submitted in accordance with U.S.G.S. requirements:

1. The geologic surface formation is Seven Rivers.

2. Estimated tops of geological markers are as follows:

San Andres	642
Glorieta	1477
Tubb	2977
Abo	3617
Hueco	4267

3. The estimated depths at which anticipated water, oil, or gas formations are expected to be encountered:

   Water - San Andres at approximately 900'
   Gas - Abo at approximately 3900'

4. Casing and Blowout Preventer Program

   Conductor: 300' of 13-3/8", 48#, H40, ST&C casing cemented with 320 sx Class "C" + 2% CaCl mixed at 14.8 ppg and yielding 1.32 cuft/sx. Cement will be circulated using redimix down the annulus if necessary. Will install flowline, but no BOPs and drill out the cement inside the casing after WOC approximately 8 hours.

   Surface: 1600' of 8-5/8", 24#, K55, ST&C casing cemented with 300 sx Howco Light + 1/4# flocele + 2% CaCl mixed at 12.4 ppg and yielding 1.9 cuft/sx. Tail in with 200 sacks Class "C" + 2% CaCl mixed at 14.8 ppg and yielding 1.32 cuft/sx. Cement will be circulated to surface using 1" pipe down the annulus if

necessary. If lost circulation has been encountered while drilling the 11" hole, the cement job will be preceded with 200 sx thickset cement mixed at 14.8 ppg and yielding 1.32 cuft/sx. Will install 8-5/8" SOW x 10" API 3000 psi casinghead with 2" API 2500 psi ball valve. Nipple up 10" API 3000 psi WP double BOP with pipe rams (bottom) and blind rams to drill 7-7/8" hole to total depth.

Production: 4400' of 4-1/2", 10.5#, K55, ST&C casing cemented with 460 sx Howco Light + 1/4# flocele + 10# salt mixed at 12.7 ppg and yielding 1.87 cuft/sx. Tailed in with 300 sx 50/50 POZ + 2% gel + 8# salt + 3/10% CFR-2 mixed at 14.1 ppg and yielding 1.30 cuft/sx or volume sufficient to raise top of cement to surface or base of surface casing. Choke, kill, and fill lines are indicated on Exhibit I. BOPs will be tested prior to drilling below the 8-5/8" casing. A full opening safety valve, to fit the drill string in use, will be kept on the rig floor at all times. The kelly cock, safety valve, choke and kill lines will be tested at the same time that BOPs tests are run. Operational opening and closing checks on all BOPs will be run on each trip, with daily operational check of pipe rams.

5. Circulating medium and control equipment

0'-1600' Use fresh water spud mud with fresh water gel and soda ash or lime. Treat with lost circulation material as hole conditions dictate. If total loss of circulation occurs, mix 2 or 3 viscous slugs with LCM and attempt to regain circulation. If unsuccessful, consider drilling without returns to casing point and spot 150 ± bbls viscous slug treated with LCM on bottom to run pipe.

1600'-3000' Drill out 8-5/8" casing with fresh water circulating reserve pit. Add caustic soda for pH 9.0 - 9.5 and chemicals for corrosion control. Mix paper as needed to control seepage or to sweep the hole.

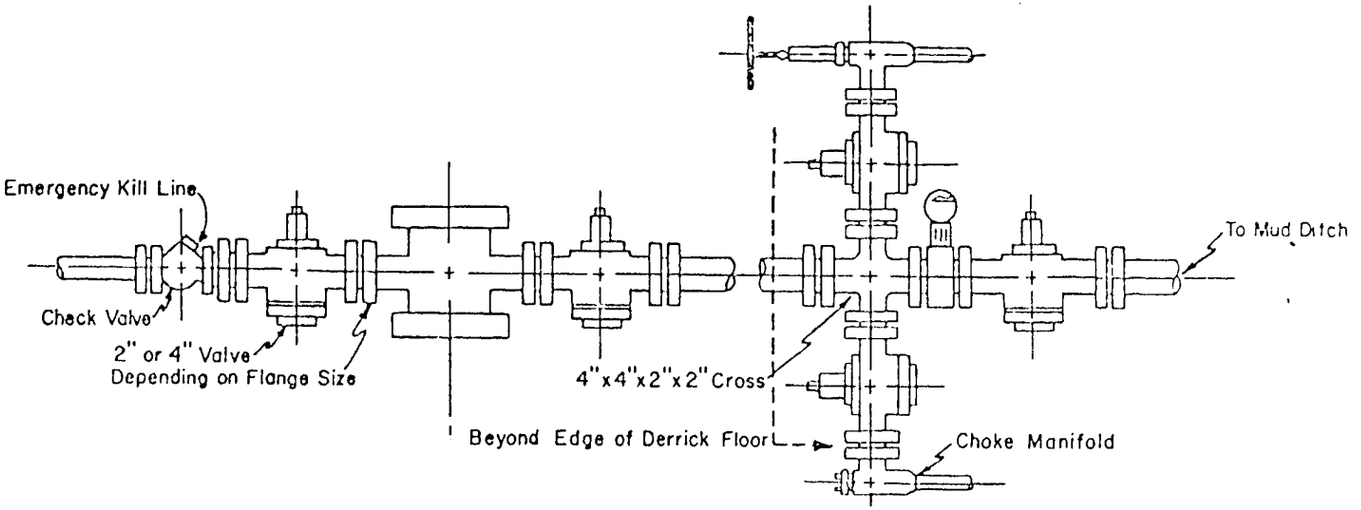
3000'-4400' Maintain mud weight less than 10 ppg with additions of fresh water while keeping chloride-ion concentration of 40,000 - 50,000 + ppm and KCL 3.0%. At 3500 mud up with starch and soda ash to control API water loss to 20 - 25 cc to TD. Sea Mud or Salt Water Gel will be added to sweep hole or to raise viscosity of system sufficiently to clean hole to run logs and casing.

6. There is no coring program or drill stem tests planned for this well. The logging program may consist of a gamma ray log from total depth to surface, compensated neutron-density-caliper log and dual laterolog-micro spherically focused log run from 1600' to total depth.

7. Maximum anticipated bottom hole pressure is 1500 psi at 4400' based upon bottom hole pressure on other area wells. Mud weight required to offset this pressure is 9.0 ppg. It is probable that leaching of expected salt stringers could increase the mud weight to 10.0 - 10.2 ppg. Bottom hole temperature should not exceed 120°F. No sour gas is expected.

8. Anticipated spud date is August 16, 1980 , with completion of drilling operations expected by 8/26/80 . Completion operations (perforations and stimulation) will follow successful drilling operations as soon as a completion unit is available.

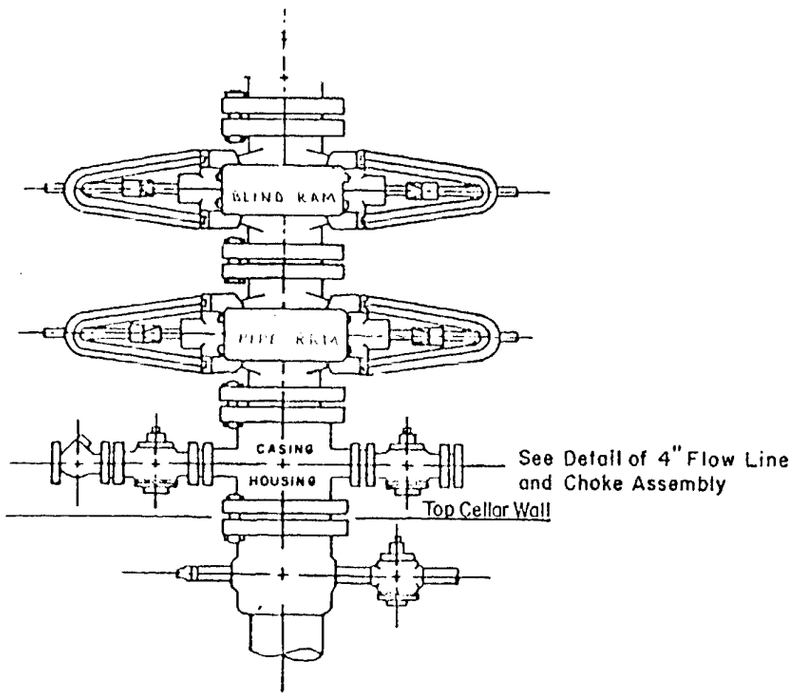
Blow-out Preventers and choke manifold are all 900 Series



3,000 PSI WORKING PRESSURE
KILL, CHOKE, AND FILL CONNECTIONS

DETAIL OF 4" FLOW LINE CHOKE ASSEMBLY

Minimum assembly for 3,000 PSI working pressure will consist of three preventers. The bottom and middle preventers may be Cameron.

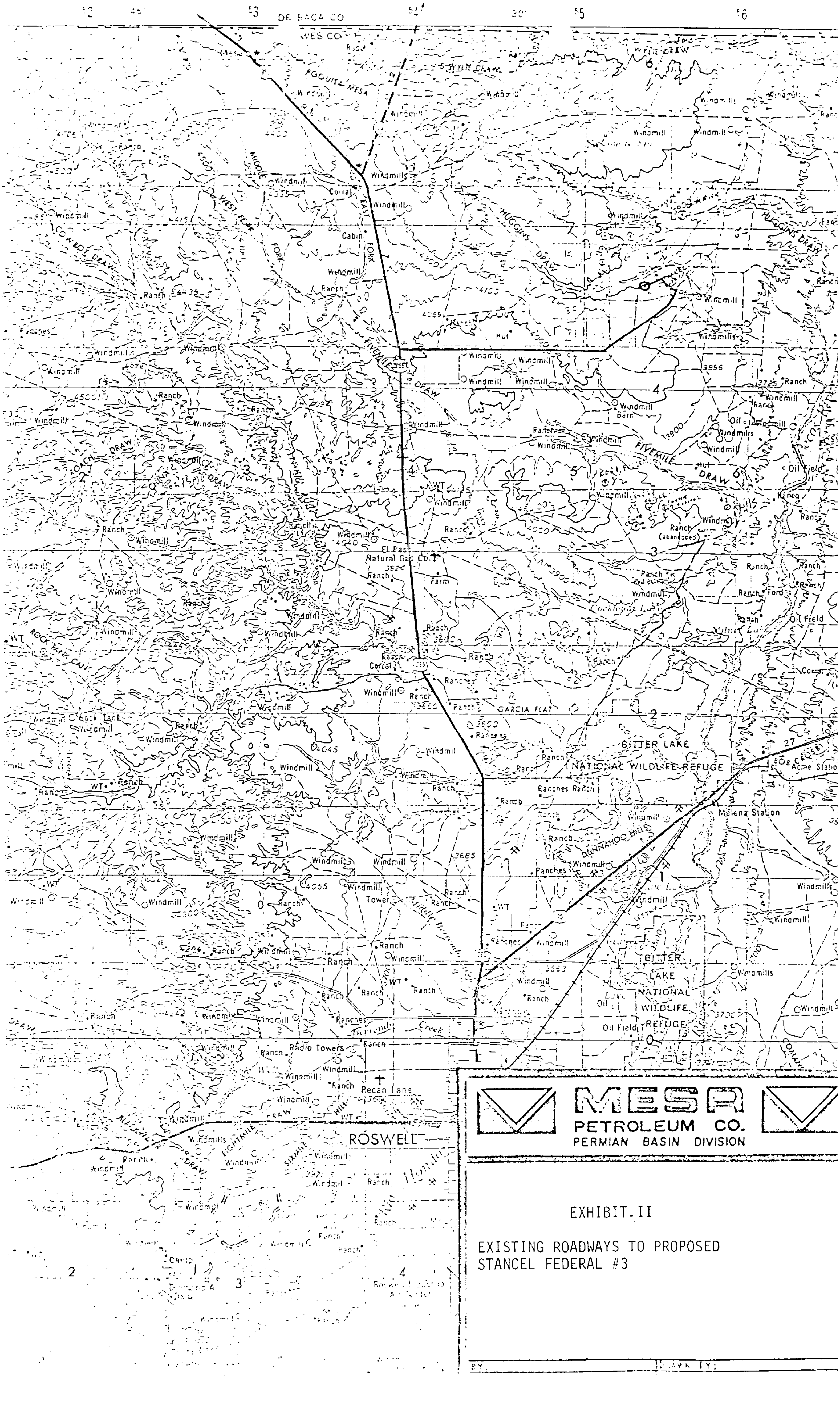


3,000 PSI WORKING PRESSURE
BLOW-OUT PREVENTER HOOK-UP

MESA
PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT

BLOWOUT PREVENTER SCHEMA
PROPOSED STANCEL FEDERAL



MESA PETROLEUM CO.

PERMIAN BASIN DIVISION

EXHIBIT II

EXISTING ROADWAYS TO PROPOSED STANCEL FEDERAL #3

BY:

DRAWN BY: