

N.M.O.C.D. COPY

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)Form approved.
Budget Bureau No. 42-R1425.UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-005-60749

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. NM-14982
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR MESA PETROLEUM CO. ✓			7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR 1000 VAUGHN BUILDING/MIDLAND, TEXAS 79701			8. FARM OR LEASE NAME STANCEL FEDERAL
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1980' FNL & 660' FEL At proposed prod. zone same			9. WELL NO. 2
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 35 miles N/NE of Roswell			10. FIELD AND POOL, OR WILDCAT Undesignated ABO
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1980'/660'			11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA 22-5-24
16. NO. OF ACRES IN LEASE 1000			12. COUNTY OR PARISH Chaves
17. NO. OF ACRES ASSIGNED TO THIS WELL 160			13. STATE N. Mexico
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 3200'			20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4014' GR			22. APPROX. DATE WORK WILL START* July 15, 1980

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. Nathan TITLE Regulatory Coordinator DATE 6-30-80

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE 7-14-80APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form 10-101
Supersedes C-12H
Effective 1-1-85

All distances must be from the outer boundaries of the Section

Operator Mesa Petroleum Co.		Lessee STANCEL FEDERAL		Area 2
Tract Letter H	Section 22	Township 5 South	Range 24 East	County Chaves
Actual Perforation of Well 1980 feet from the North line and 660 feet from the East line				
Ground Level Elev 4014	Production Perforation ABO	Pool UNDESIGNATED		Section Area NE/4 160

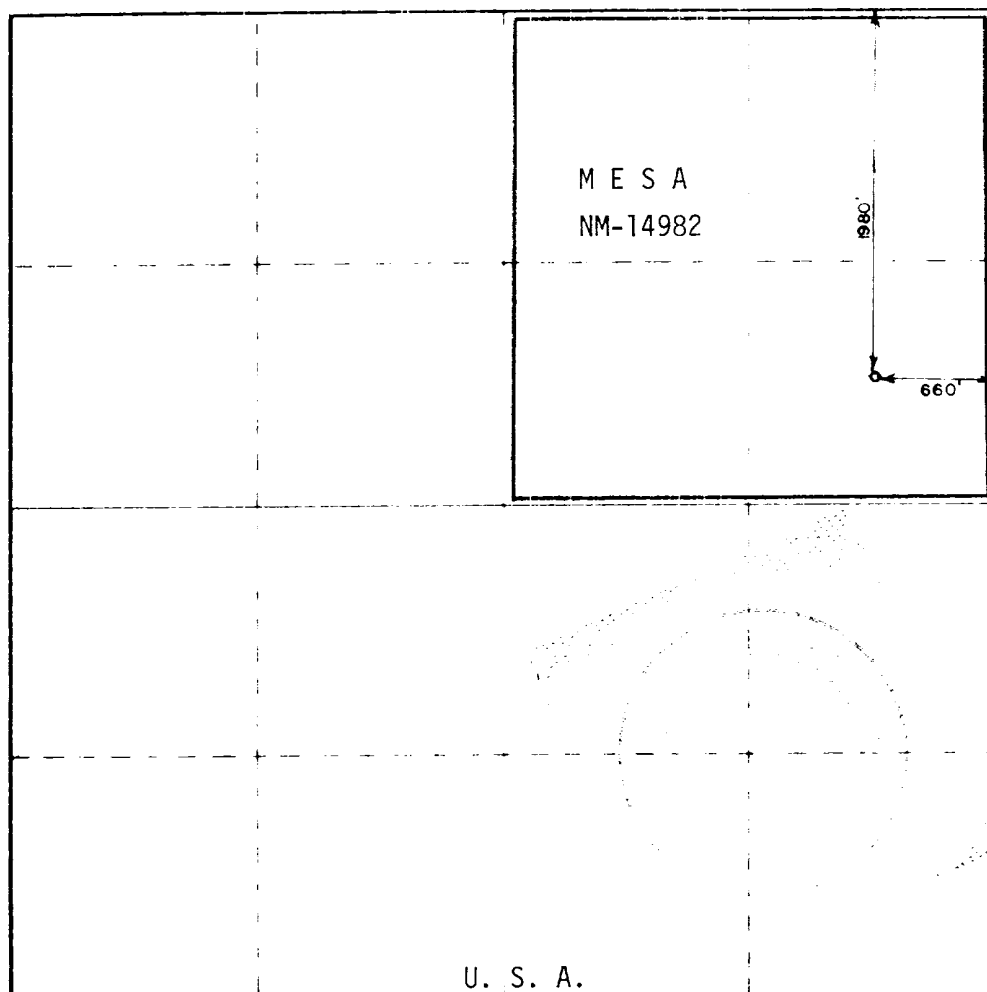
- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty)
- If more than one lease of different ownership is dedicated 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.

RECEIVED
JUL - 1 1980
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO



CERTIFICATION

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

R. E. Mathis

R. E. MATHIS

Regulatory Coordinator

Mesa Petroleum Co

I hereby certify that the well location shown on this plat was plotted from transcripts 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

2-20-1980

Registered Professional Engineer
Professional Surveyor

Patrick A. Romero

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

330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600



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United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Drawer U
Artesia, New Mexico 88210

RECEIVED

JUL 17 1980

O. C. D.
ARTESIA, OFFICE

July 14, 1980

Mesa Petroleum Company
1000 Vaughn Building
Midland, Texas 79701

Gentlemen:

MESA PETROLEUM COMPANY
Stancel Federal No. 2
1980 FNL 660 FEL Sec. 22, T.5S, R.24E.
Chaves County Lease No. NM-14982

Above Data Required on Well Sign

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.) GEORGE H. STEWART

George H. Stewart
Acting District Engineer

APPLICATION FOR DRILLING
MESA PETROLEUM CO
STANCEL FEDERAL WELL NO. 2
1980' FNL & 660' FEL, Sec 22, T5S, R24E
CHAVES COUNTY, NEW MEXICO

LEASE: NM-14982

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	644
Glorieta	1484
Tubb	2984
Abo	3624
Hueco	4274

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

Application for Permit to Drill

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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

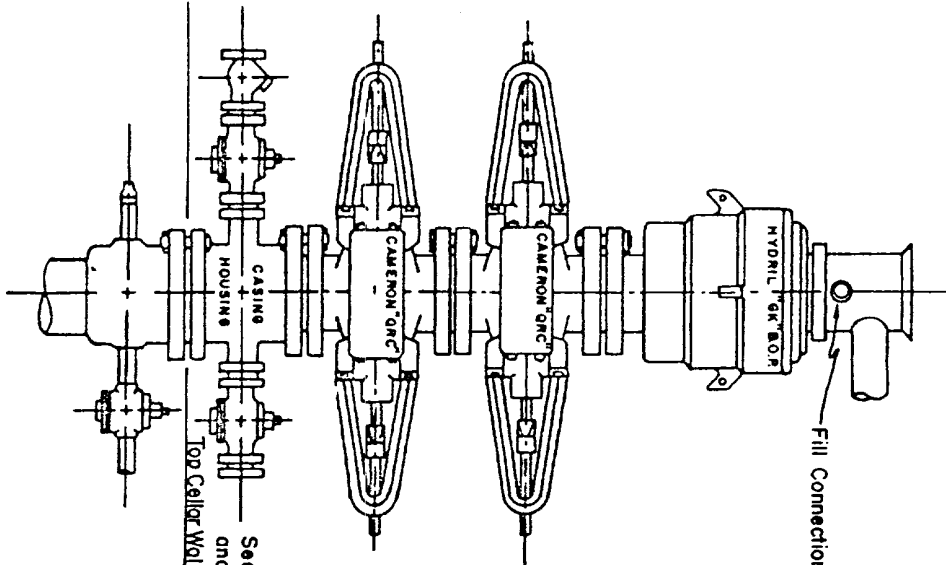
- 0'-1600' Use fresh water spud mud with fresh water gel and soda ash or lime. Treat with lost circulation material as hole conditions dictate. If total loss of circulation occurs, mix 2 or 3 viscous slugs with LCM and attempt to regain circulation. If unsuccessful, consider drilling without returns 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.

Application for Permit to Drill

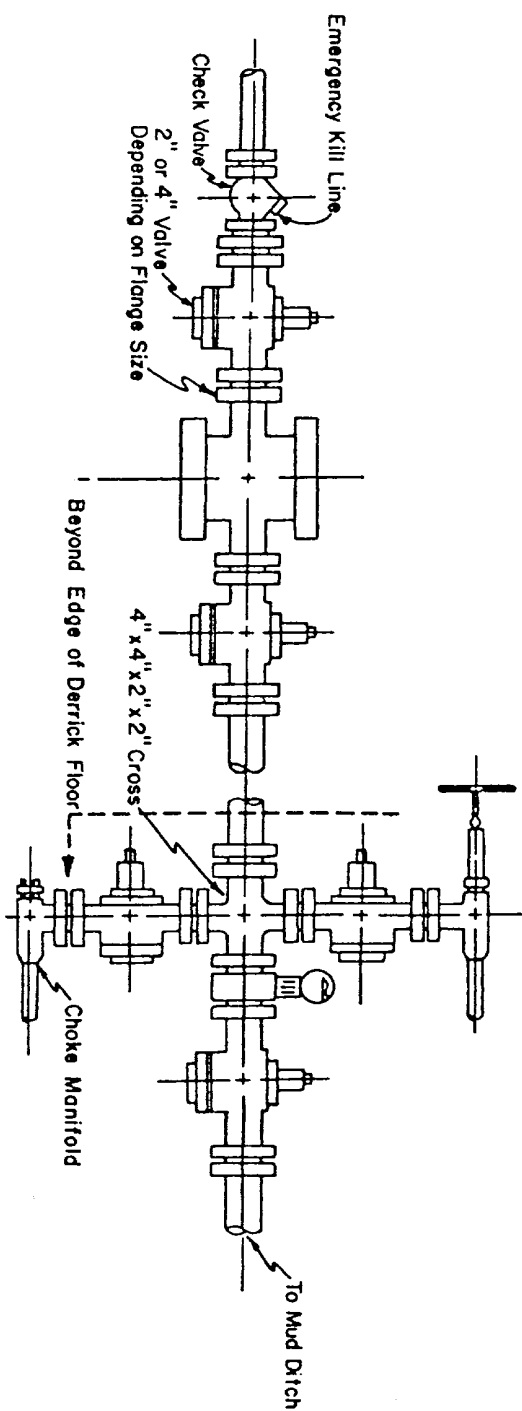
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6. There is no coring program or drill stem tests planned for this well. The logging program may consist of a gamma ray log from total depth to surface, compensated neutron-density-caliper log and dual laterolog-micro spherically focused log run from 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 July 15, 1980 , with completion of drilling operations expected by July 30, 1980 . Completion operations (perforations and stimulation) will follow successful drilling operations as soon as a completion unit is available.

Blow-out Preventers hydril and choke manifold are all 900 Series



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



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.

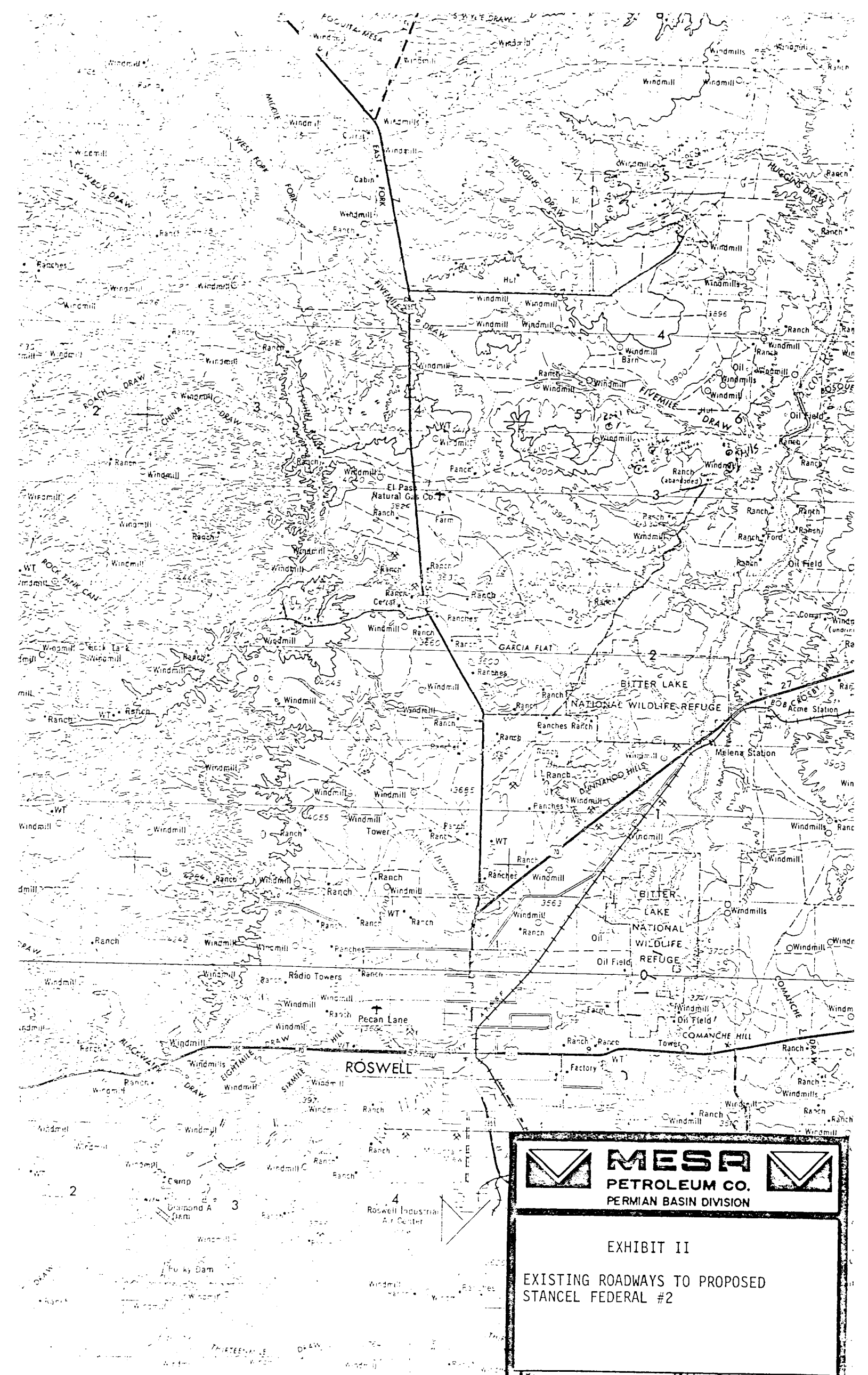




PERMIAN BASIN DIVISION

EXHIBIT I

BLOWOUT PREVENTER SCHEMATIC
FOR PROPOSED STANCEL FEDERAL #2

DATE: _____ BY: _____

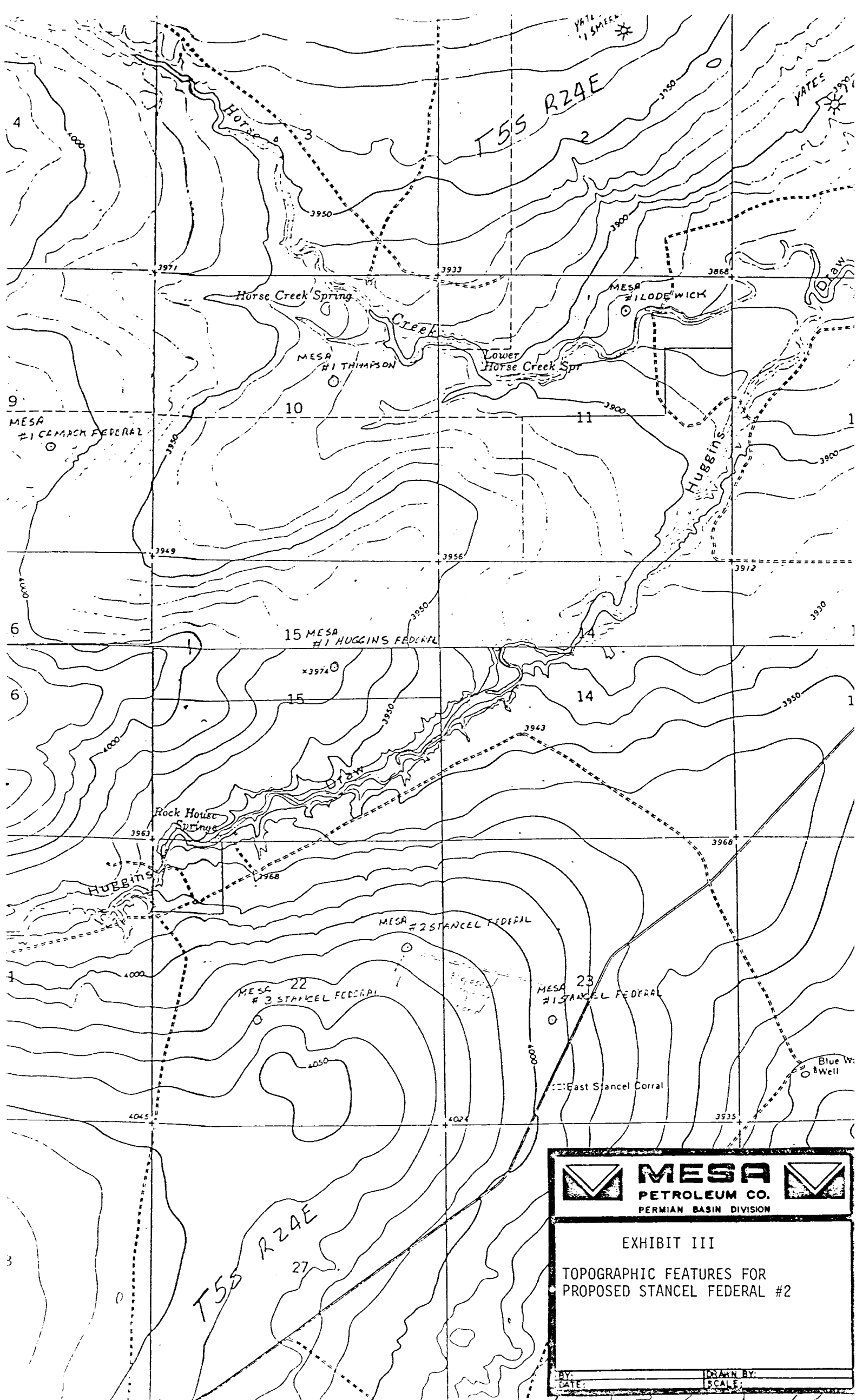


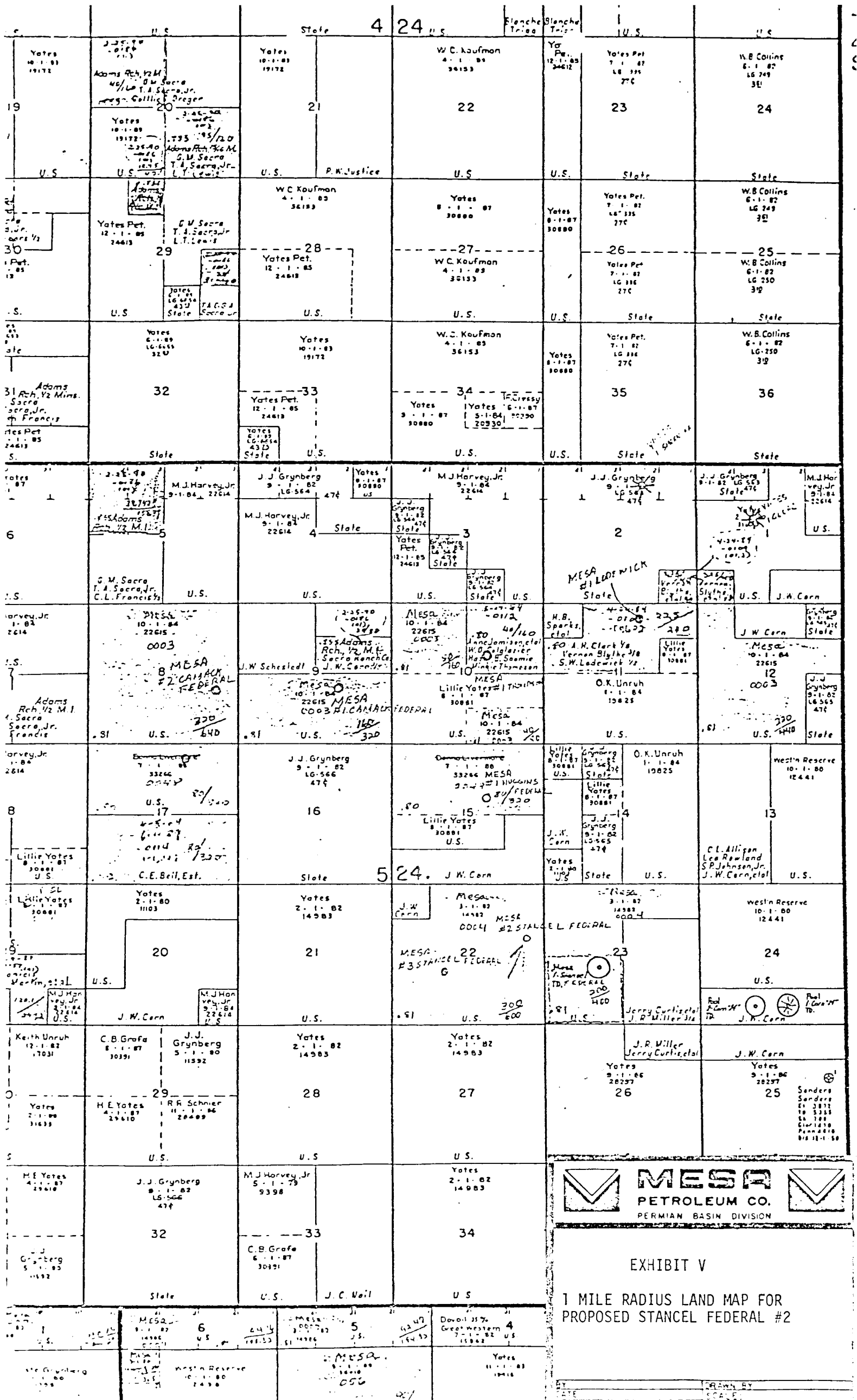
**MESR**

PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT II

EXISTING ROADWAYS TO PROPOSED
STANCEL FEDERAL #2





MESA
PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT V

1 MILE RADIUS LAND MAP FOR
PROPOSED STANCEL FEDERAL #2

DATE: _____ DRAWN BY: _____
SCALE: _____