Form 9-331 C
(May 1963)

N.M.O.C.D. COPY

SUBMIT IN [illegible]PLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-005-60703

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.: 1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 23, T5S, R24E

12. COUNTY OR PARISH: Chaves

13. STATE: N. Mexico

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

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

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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

U-K

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 35 miles N/NE of Roswell

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	17. NO. OF ACRES ASSIGNED TO THIS WELL
1980'	1,000	320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
N/A	5,300'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3996.5' GR 4009' RKB

22. APPROX. DATE WORK WILL START*: May 1, 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 sx "C" + 2% CaCl
11"	8-5/8"	24#	1600'	300 sx HLW / 200 "C"
7-7/8"	4-1/2"	10.5#	5300'	700 sx HLW / 200 POZ

Propose to drill 17-1/2" hole to 300', cement 13-3/8" casing, reduce hole to 11" and drill ahead 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 5300'. 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 corrossion 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.

[illegible]

APR 2 1980

U.S. GEOLOGICAL SURVEY
ARTESIA, 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 R. E. Martin TITLE Regulatory Coordinator DATE April 1, 1980

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE 4-17-80

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

XC: USGS (6), TLS, JWH, MEC, JBH, CENTRAL RECORDS, ACCTG, PLE, FILE

*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.	Stencil Federal	1

Unit Letter	Section	Township	Range	County
K	23	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
3996.5	Penn	Wildcat Penn	W/2 320 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.

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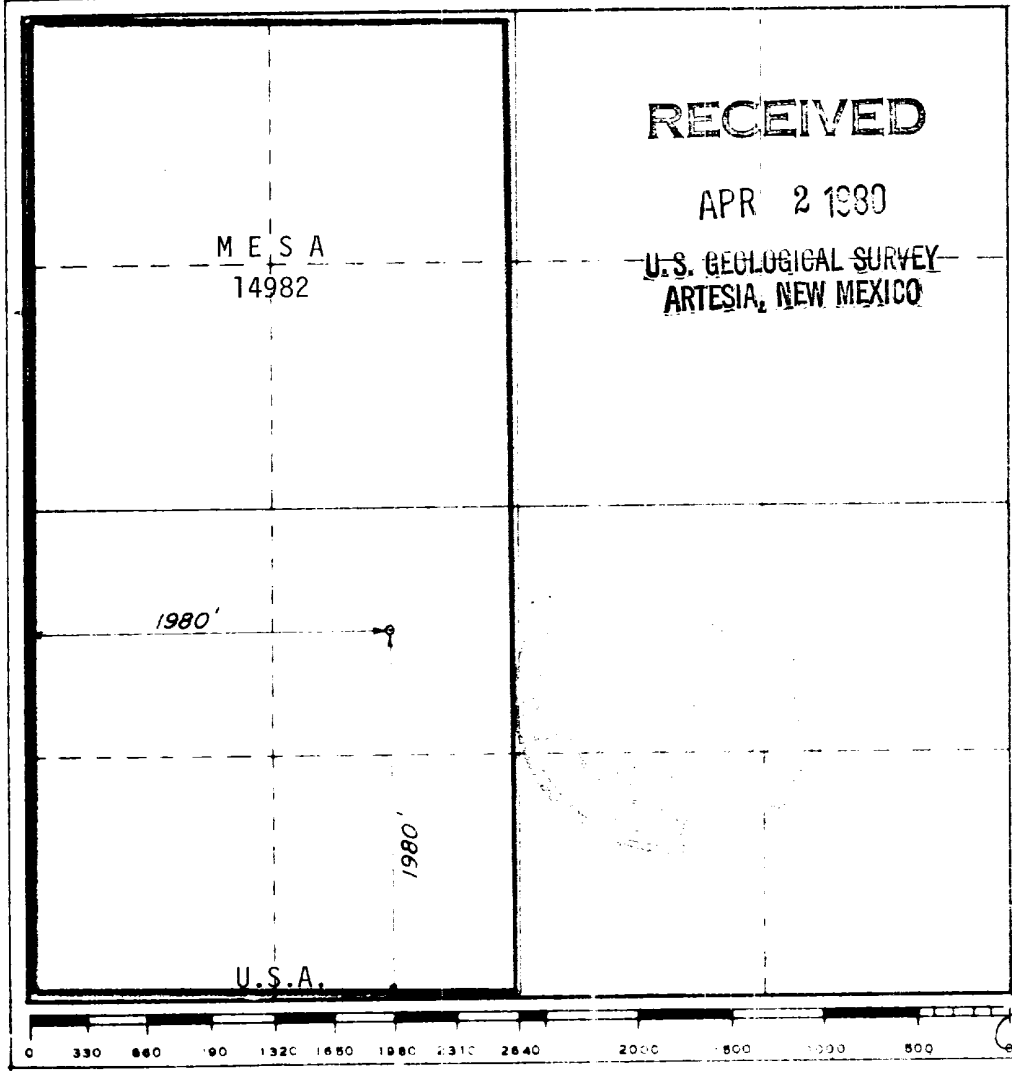
ARTESIA, NEW MEXICO



CERTIFICATION

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

R. E. Mathis

Regulatory Coordinator

Mesa Petroleum Co.

April 1, 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.

3-26-1980

Registered Professional Engineer and/or Land Surveyor

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

RECEIVED
APR 21 1980
O. C. D.
ARTESIA, OFFICE

April 17, 1980

Mesa Petroleum Company
1000 Vaughn Building
Midland, Texas 79701

MESA PETROLEUM COMPANY Stancel Fed No. 1 1980 FSL 1980 FWL Sec. 23 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 5,300 feet to test the Penn 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 attached 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 these Conditions of Approval including the attached 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 is completed and the Well Completion Report (form 9-330) is filed. The report should not be 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 Guidelines. The color used should simulate Sandstone Brown (Federal Standard No. 595A, color 20318 or 30318).

6. Before drilling below the 8-5/8" casing, the blowout preventer assembly will consist of a minimum of two ram type preventers.

7. A kelly cock will be installed and maintained in operable condition.

8. After setting the 8-5/8" casing string and before drilling into the Wolfcamp formation, the blowout preventers and related control equipment shall be pressure tested to rated working pressures. Any equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests.

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

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

12. 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,

George H. Stewart
Acting District Engineer

APPLICATION FOR DRILLING

MESA PETROLEUM CO.
STANCEL FEDERAL WELL NO. 1
1980' FSL and 1980' FWL of Sec 23, T5S, R24E
CHAVES COUNTY, NEW MEXICO

LEASE: NM-14982
APRIL 1, 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	554
Glorieta	1466
Tubb	2979
Abo	3622
Hueco	4286
T/Penn	4802
Granite	5222

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

Water - San Andres at approximately 900'
Gas - Abo at approximately 3900'
Gas - Hueco at approximately 4400'
Gas - Penn at approximately 4910'

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 a-nulus 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: 5300' of 4-1/2", 10.5#, K55, ST&C casing cemented with 700 sx Howco Light + 1/4# flocele + 10# salt mixed at 12.7 ppg and yielding 1.87 cuft/sx. Tailed in with 200 sx 50/50 POZ + 2% gel + 3# 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 - 3500' Drill out 8-5/8" casing with fresh water circulating reserve pit. Add caustic soda for pH 9.0 - 9.5 and chemicals for corrossion control. Mix paper as needed to control seepage or to sweep the hole.

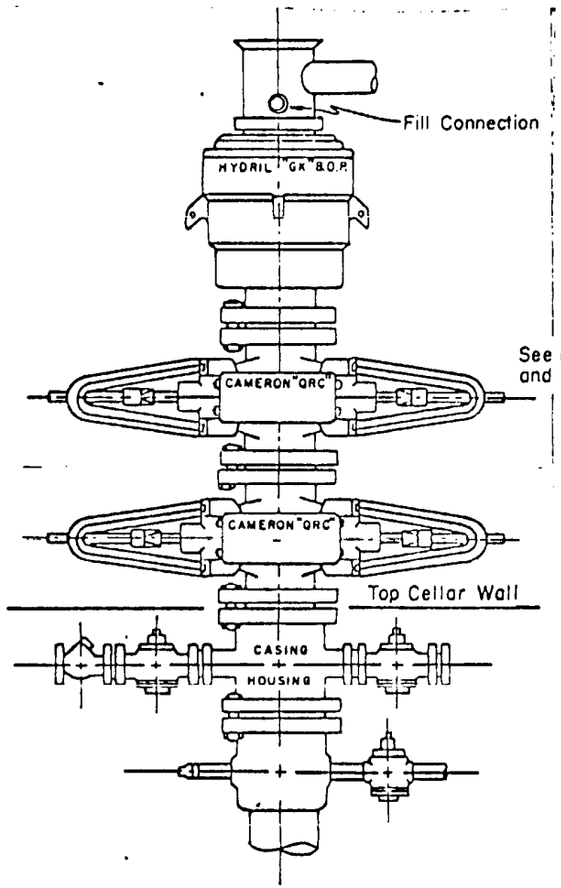
   3500 - 5300' Maintain mud weight less than 10 ppg with additions of fresh water while keeping chloride-ion concentration of 40,000 - 50,000 + ppm and KCL 3.0%. At 3500 mud up with starch and soda ash to control API water loss to 20 - 25 cc to TD. Sea Mud or Salt Water Gel will be added to sweep hole 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 will consist of a gamma ray log from total depth to surface. Compensated neutron-density-caliper log and dual laterolog-micro spherically focused log will be run from 1600' to total depth.

7. Maximum anticipated bottom hole pressure is 2250 psi at 5300' based upon bottom hole pressure on other area wells. Mud weight required to offset this pressure is 9.5 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 130° F. No sour gas is expected.

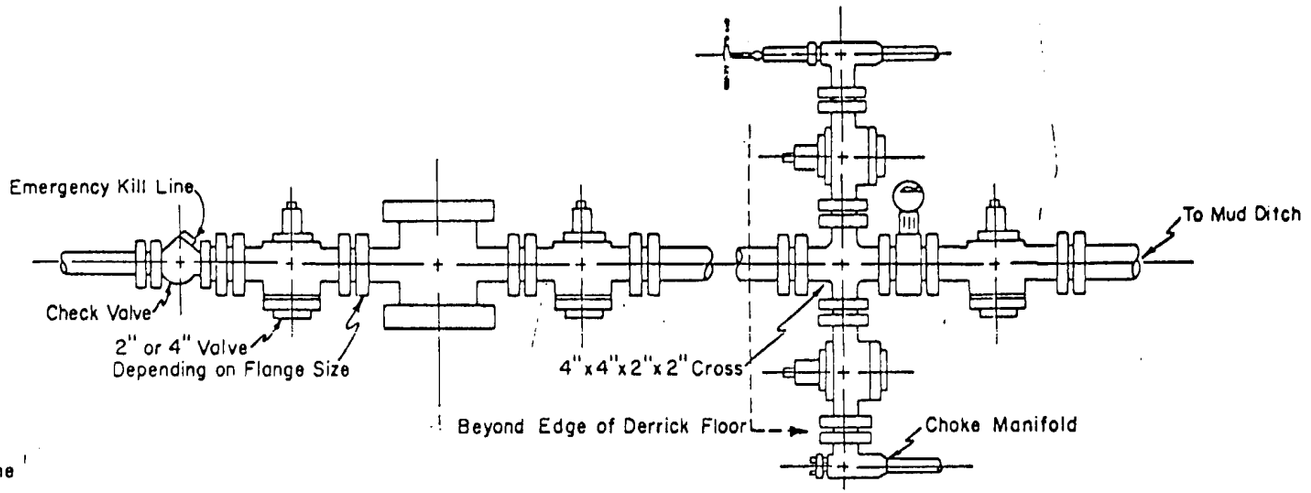
8. Anticipated spud date is May 1, 1980, with completion of drilling operations expected by May 15, 1980. Completion operations (perforations and stimulation) will follow successful drilling operations as soon as a completion unti is available.

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



See Detail of 4" Flow Line and Choke Assembly

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

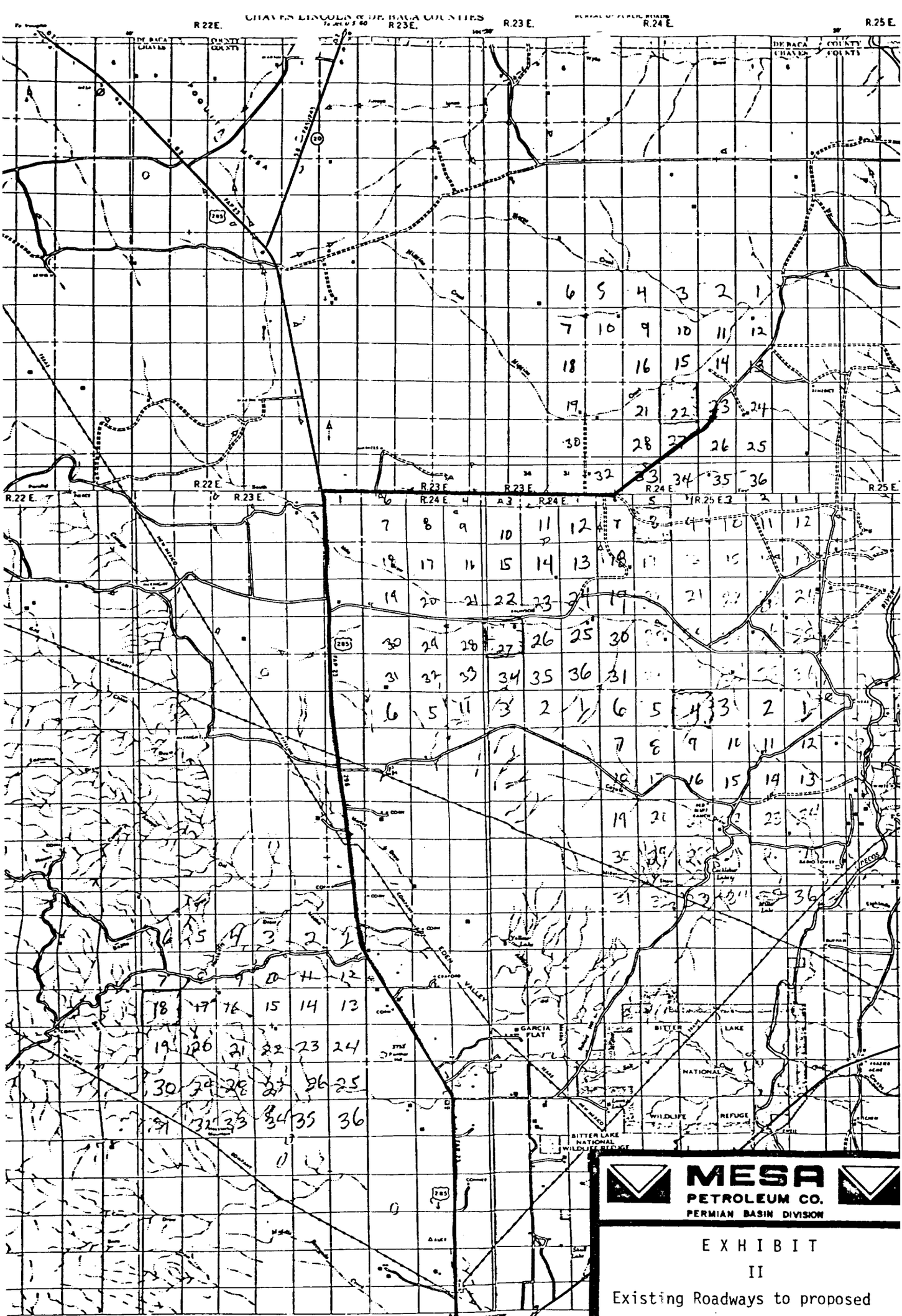
Minimum assembly for 3,000 PSI working pressure will consist of three preventers. The bottom and middle preventers may be Cameron.

MESA PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT
I

BLOWOUT PREVENTER SCHEMATIC
for proposed BARN FEDERAL #1

BY:
DATE:
DRAWN BY:
SCALE:



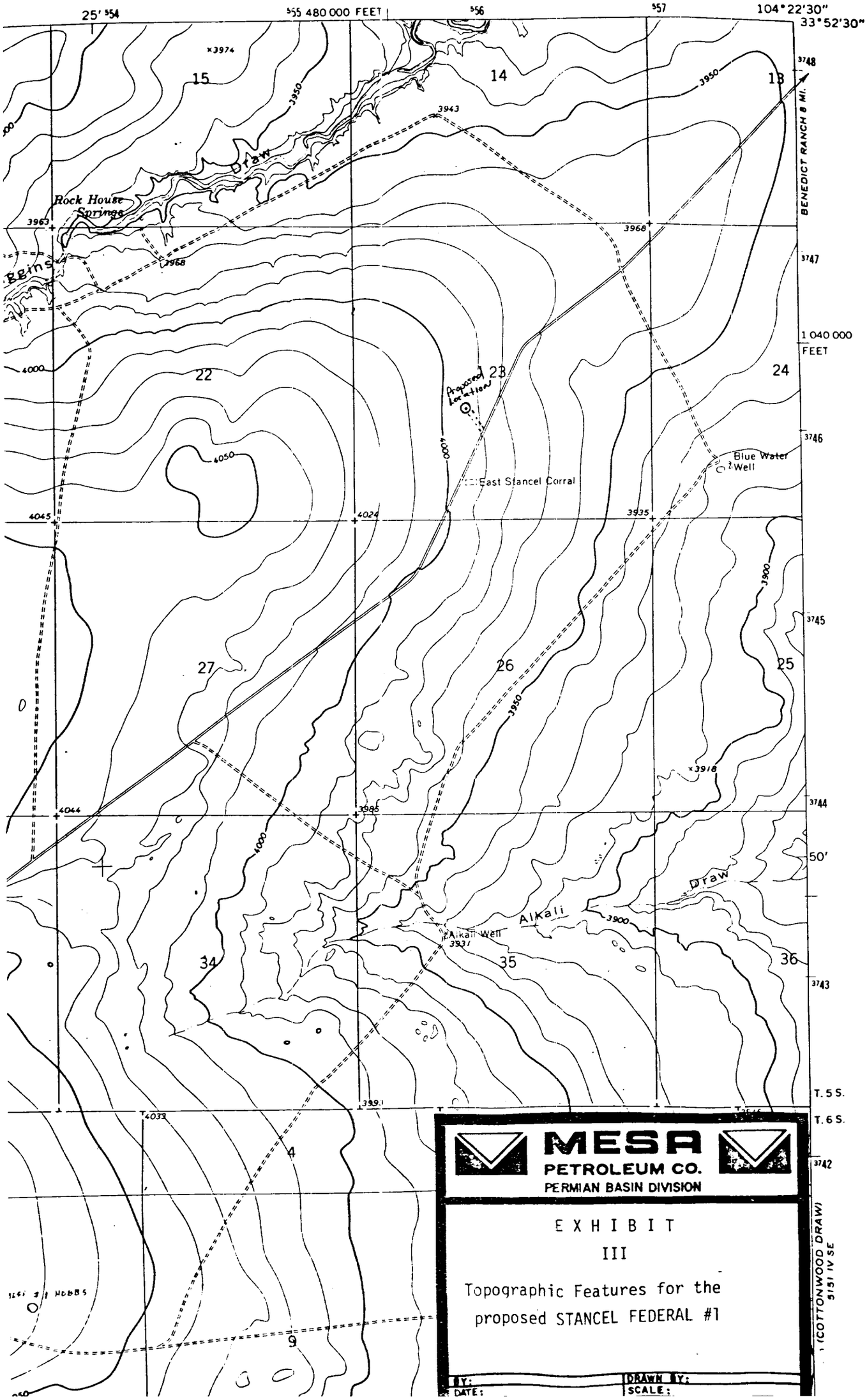
MESA PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT
II
Existing Roadways to proposed
STANCEL FEDERAL #1

BY:
DATE:
DRAWN BY:
SCALE:

SHANNON DRAW QUADRANGLE
NEW MEXICO–CHAVES CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

5151 IV NE (DEERING PLACE)



MESA PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT
III

Topographic Features for the proposed STANCEL FEDERAL #1

BY:
DATE:
DRAWN BY:
SCALE: