N.M.O.C.D. COPY

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-005-61087

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

C/SI

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM - 36647

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

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

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

8. FARM OR LEASE NAME: MACHO FEDERAL

2. NAME OF OPERATOR: MESA PETROLEUM CO.

9. WELL NO.: 3

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

10. FIELD AND POOL, OR WILDCAT: UNDESIGNATED ABO

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FNL & 1980' FWL
At proposed prod. zone: SAME

AUG 2 - 1981
O. C. D.
ARTESIA, OFFICE

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC. 8, T7S, R23E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 26 miles north of Roswell.

12. COUNTY OR PARISH: CHAVES

13. STATE: NEW MEXICO

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
660'/660'	2209.13	160
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**
2600'	3350'	ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3984' GR

22. APPROX. DATE WORK WILL START*: NOVEMBER 1, 1981

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	1500'	SURFACE
7 7/8"	4 1/2"	10.5#	3350'	ISOLATE WTR, O&G

Propose to drill 12 1/4" hole to approximately 1500' to set 8 5/8" surface casing and cement to surface. Will nipple up ram type BOP's and reduce hole to 7 7/8" to drill to total depth. Drilling medium will be air, foam, or mud as required. After log evaluation, 4 1/2" casing may be run and cemented with sufficient kinds and amounts to isolate and seal off any fresh water, oil, or gas zones encountered.

Gas Sales Are Dedicated.

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ROSWELL, NEW MEXICO

XC: USGS (6), TLS, CEN RCDS, ACCTG, ROSWELL, MEC, LAND, PARTNERS, FILE.

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 8-11-81

(This space for Federal or State office use)

APPROVED
AUG 21 1981
JAMES A. GILLHAM
DISTRICT SUPERVISOR

PERMIT NO. (Orig. Sgd.) GEORGE H. STEWART APPROVAL DATE

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator			Lease		
MESA PET[illegible] COMPANY			[illegible]		
Unit Letter	Section	Township	Range		
C	8	7 South	33 East		
Actual Footage Location of Well:					
1980 feet from the West		line and 660		feet from the [illegible]	
Ground Level Elev.	Producing Formation		Pool		Dedicated Acreage
3984.0 '	ABO		UNDESIGNATED Abo		NW/4 160

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

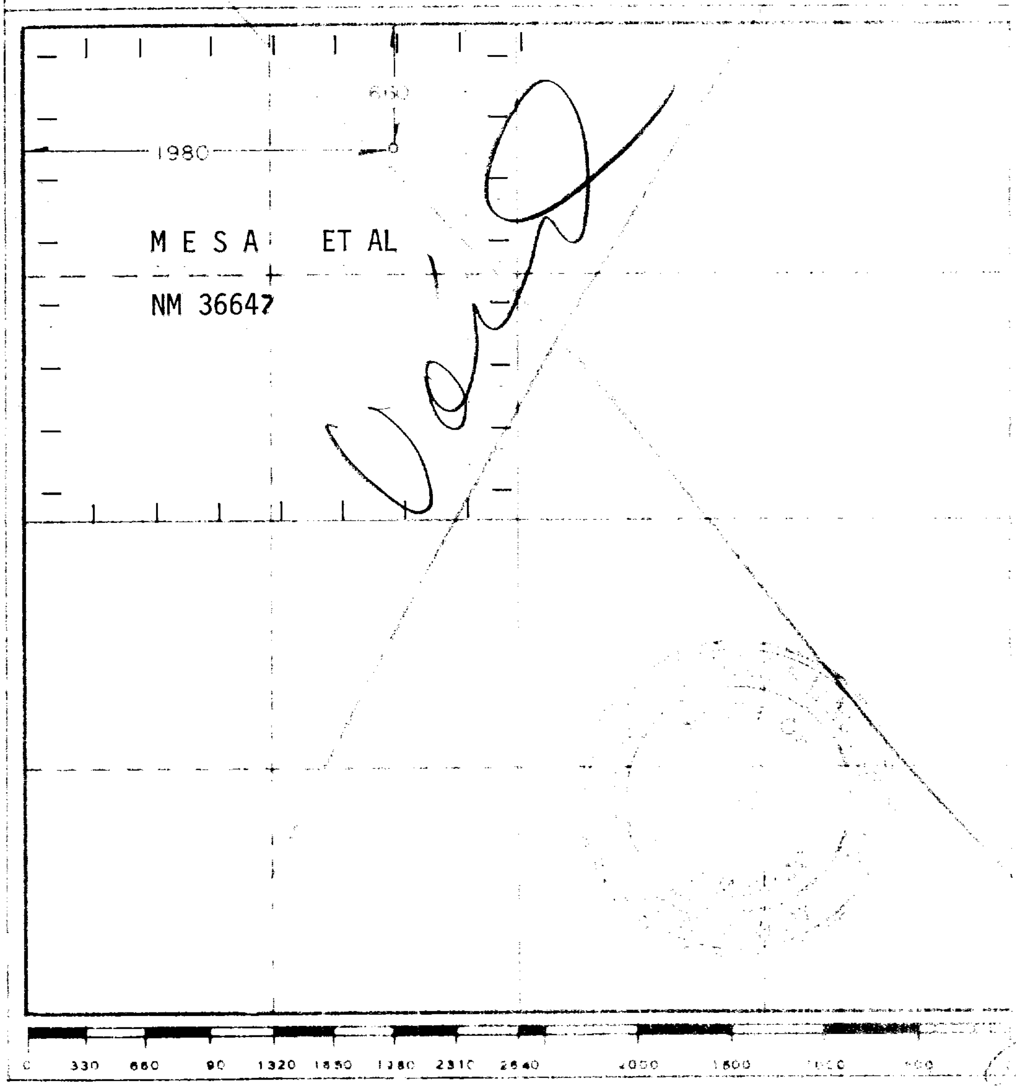
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 [illegible]

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

R, E. MATHIS

REGULATORY COORDINATOR

MESA PETROLEUM CO.

AUGUST 12, 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.

Certificate No. JOHN W. WEST
PATRICK [illegible]
Ronald [illegible]

APPLICATION FOR DRILLING

MESA PETROLEUM CO.
MACHO FEDERAL #3
660' FNL & 1980' FWL, SEC 8, T7S, R23E
CHAVES COUNTY, NEW MEXICO

LEASE NO: NM 36647

In conjunction with Form 9331-C, Application For Permit to Drill subject well, the following additional information is provided:

1. Applicable portions of the GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL LEASES, Roswell District, Geological Survey of September 1, 1980 will be adhered to.

2. Geological markers are estimated as follows:

SAN ANDRES	SURFACE
GLORIETA	560'
YESO	738'
TUBB	2086'
ABO	2721'

3. Hydrocarbon bearing strata may occur in the Abo formation(s). No fresh water is expected to be encountered below 1000'.

4. The Casing and Blowout Preventer Program will be determined by hole conditions as encountered. (See Exhibit VI) Anticipate drilling with air or foam using ram type preventer and rotating head for well control. The 8 5/8" casing will be set at approximately 1500' to protect any fresh water zones and cemented to the surface. The 4 1/2" production casing will be set at total depth or shallower depending upon the depth of the deepest commercial hydrocarbon bearing strata encountered. Sufficient amounts and kinds of cement would be used to ensure any water, gas, or oil zones encountered are isolated and shut off down to the casing point, if run.

5. No drill stem tests or coring program is planned. The logging program may consist of a GR-CNL from surface to total depth and FDC from casing point to total depth.

6. Anticipated drilling time is ten days with completion operations to follow as soon as a completion unit is available.

MUL -POINT SURFACE USE AND OPERATI. PLAN

MESA PETROLEUM CO.
MACHO FEDERAL #3
660' FNL & 1980' FWL, SEC 8, T7S, R23E
CHAVES COUNTY, NEW MEXICO
LEASE NO: NM 36647

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U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operational plan in both the actual and post drilling completion operations.

1. Existing Roads:

A. Exhibit I is a portion of a highway map showing the location of the proposed well as staked. The proposed well is approximately 26 miles North of Roswell, New Mexico.

B. Directions: Travel North from Roswell on US Highway 285 to just past mile marker 132 and turn West thru cattleguard for approximately 3 miles. Turn South at ranch house 3/10 mile then cross the Macho Draw and follow lease road 3/4 mile to the Northwest to the location.

2. Planned Access Road:

A. Length and width: The new access road will be 12' wide (20' ROW) and approximately 200' of new road, 1000' of upgraded 2 track and then 1/2 mile of new road.

(See Exhibit II)

B. Construction: The new road will be constructed by grading and topping with compacted caliche. The surface will be crowned, with drainage on both sides. (See Exhibit III)

C. Culverts, Gates and Cattleguards: Two double-wide gates and two cattleguards will be installed. A shallow water crossing will be made across the Macho.

D. Cut and Fill: In order for the location to be level, approximately 3' of cut from the West will be moved to the East for fill.

3. Location of Existing Wells:

Existing wells within a one-mile radius are depicted by Exhibit IV.

4. Location of Existing and/or Proposed Facilities:

If the well proves to be commercial, the necessary production facilities, gas separation process equipment and tank battery, will be installed on the drilling pad.

5. Location and Type of Water Supply:

It is planned to drill the proposed well with air. If needed, water will be obtained from commercial sources and will be trucked to the wellsite over the existing roads and proposed access road shown on Exhibits I and II or piped in from a nearby source.

6. Source of Construction Materials:

Caliche for surfacing the road and wellsite pad will be obtained by the dirt contractor from an approved pit. Probable pit is located: Near US Highway 285.

7. Methods of Handling Waste Disposal:

A. Drill cuttings will be disposed of in the reserve pits.

B. Drilling fluids will be allowed to evaporate ~~in~~ the reserve pits until the pits are dry.

C. All pits will be fenced with normal fencing material to prevent livestock from entering the area.

D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted to the USGS for approval.

E. Current laws and regulations pertaining to the disposal of human waste will be complied with.

F. Trash, waste paper, garbage and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind.

G. All trash and debris will be buried or removed from the wellsite within 30 days after finished and/or completion operations.

8. Ancillary Facilities: None required.

9. Wellsite Layout:

A. Exhibit V shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged.

B. Some leveling of the wellsite may be required. See Exhibit III for additional details.

C. The reserve pit will not be plastic lined.

10. Plans for Restoration of the Surface:

A. After completion of drilling and/or completion operations all equipment and other material not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing a condition as possible.

B. Any unguarded pits containing fluids will be fenced until they are filled.

C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment, if drying conditions permit.

11. Other Information:

A. Topography: The land surface in the vicinity of the wellsite is karst in nature with limestone caps and typical and errosion patterns.

B. Soil: The topsoil at the wellsite is sandy loam.

C. Flora and Fauna: See the Archaeological Report filed by NMAS, Inc. for a description of vegetative types.

D. Ponds and Streams: Arroyo del Macho is 1/4 mile to the Northeast and China Draw is 1/2 mile to the South.

E. Residences and Other Structures: None.

F. Land Use: Grazing.

G. Surface Ownership: The wellsite is on Federal surface.

H. There is no evidence of any major archaeological, historical, or cultural sites in the area. NMAS, Inc. has conducted an archaeological study of this site and provides this report to interested parties.

12. Operator's Representatives:

A. The field representatives responsible for assuring compliance with the approved surface use and operations plan are as follows:

J. James
P. O. Box 298
Roswell, New Mexico
(505-622-0992) - Office
(505-622-0234) - Home

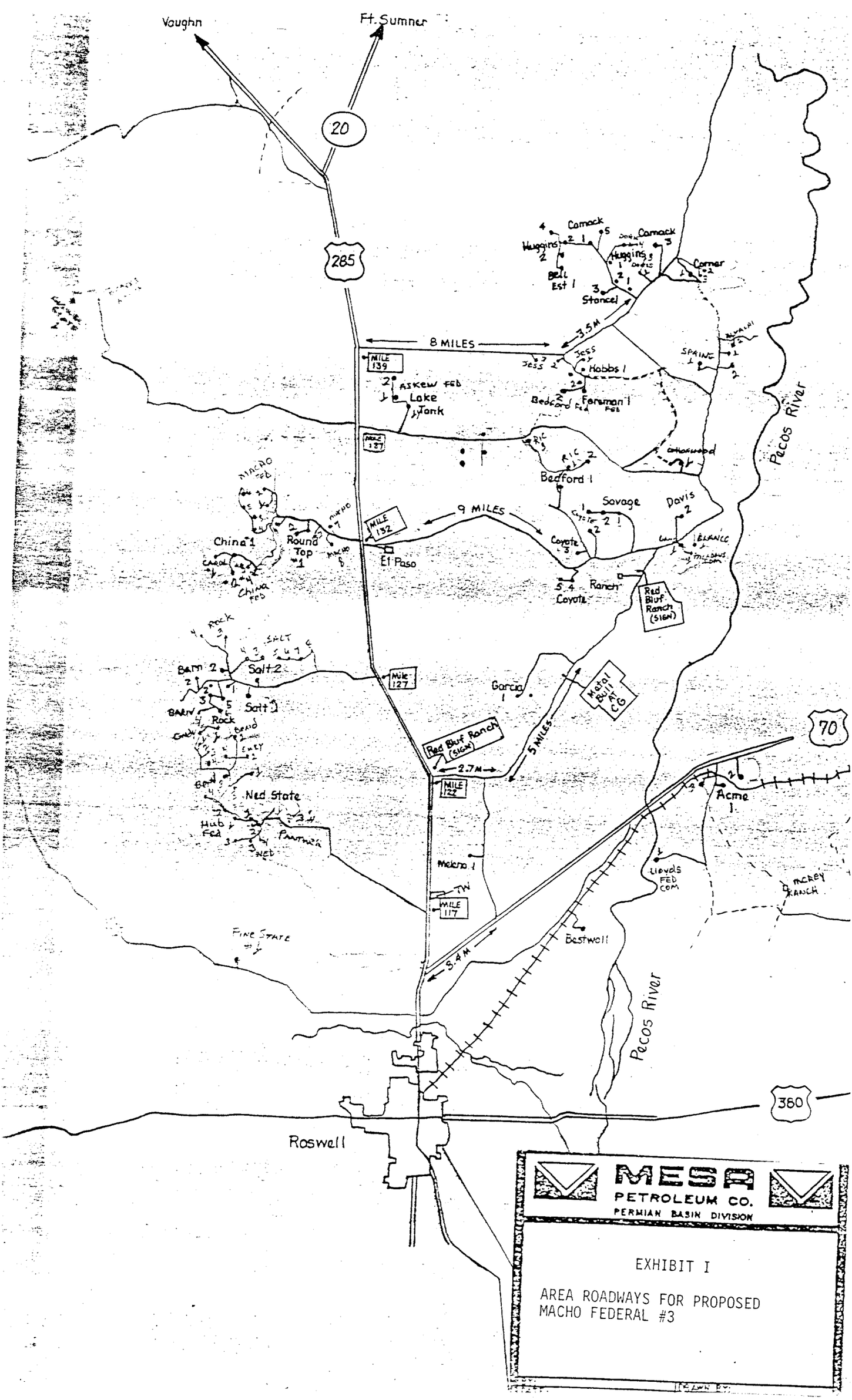
W. R. Miertschin
1000 Vaughn Building
Midland, Texas 79701
(915-683-5391) - Office
(915-682-6535) - Home

13. Certification:

I hereby certify that I, or person under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will be performed by Mesa Petroleum Co. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

August 12, 1981
DATE

Michael P. Houston
MICHAEL P. HOUSTON
OPERATIONS MANAGER



MESA PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT I

AREA ROADWAYS FOR PROPOSED
MACHO FEDERAL #3

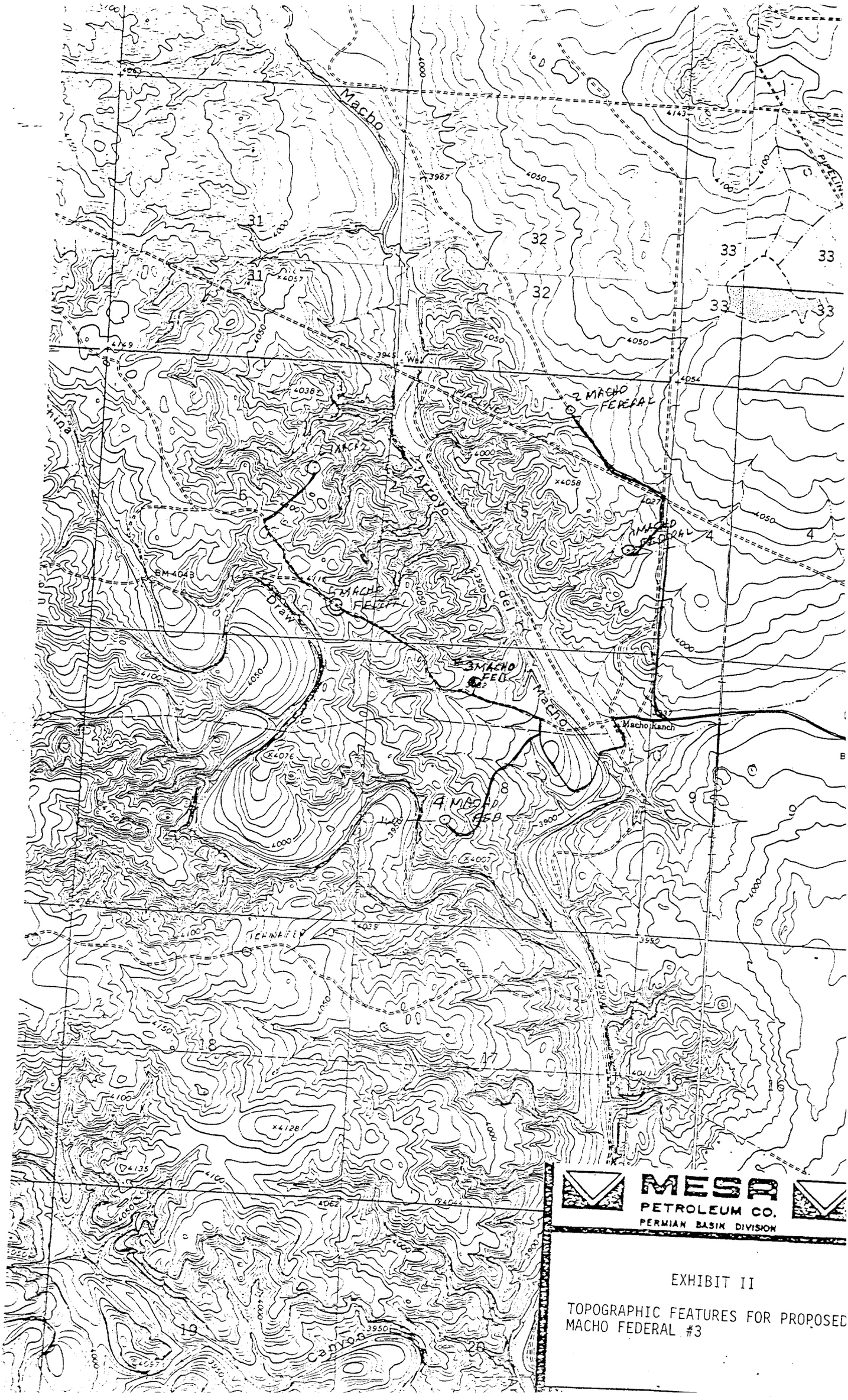
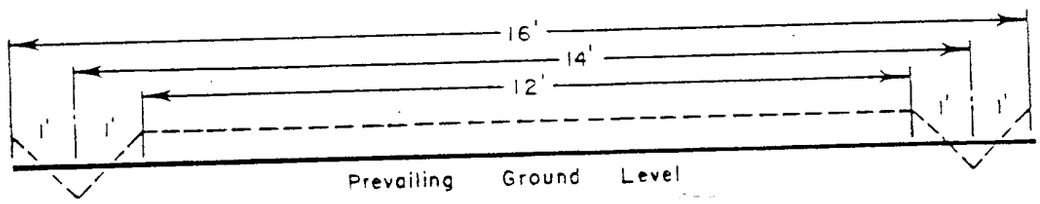


EXHIBIT II

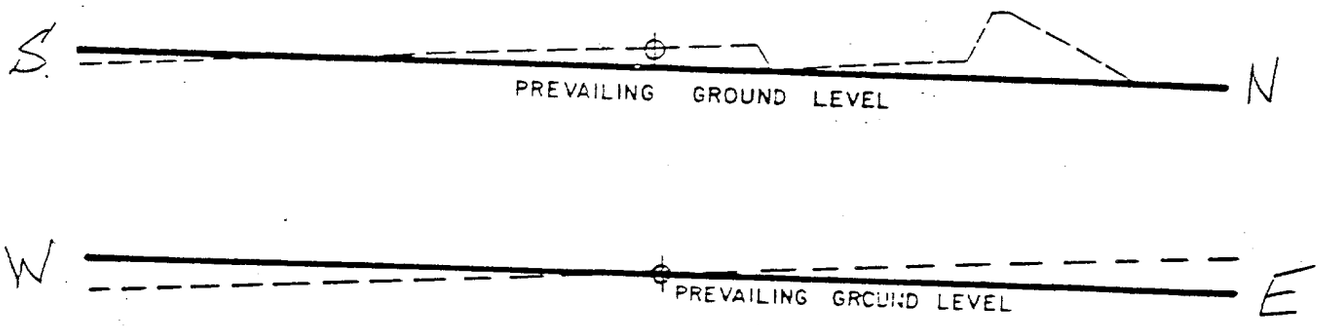
TOPOGRAPHIC FEATURES FOR PROPOSED
MACHO FEDERAL #3

R - O - W 16'



ROADWAY CROSS SECTION

Horizontal Scale 1" = 3'



LOCATION CROSS SECTION

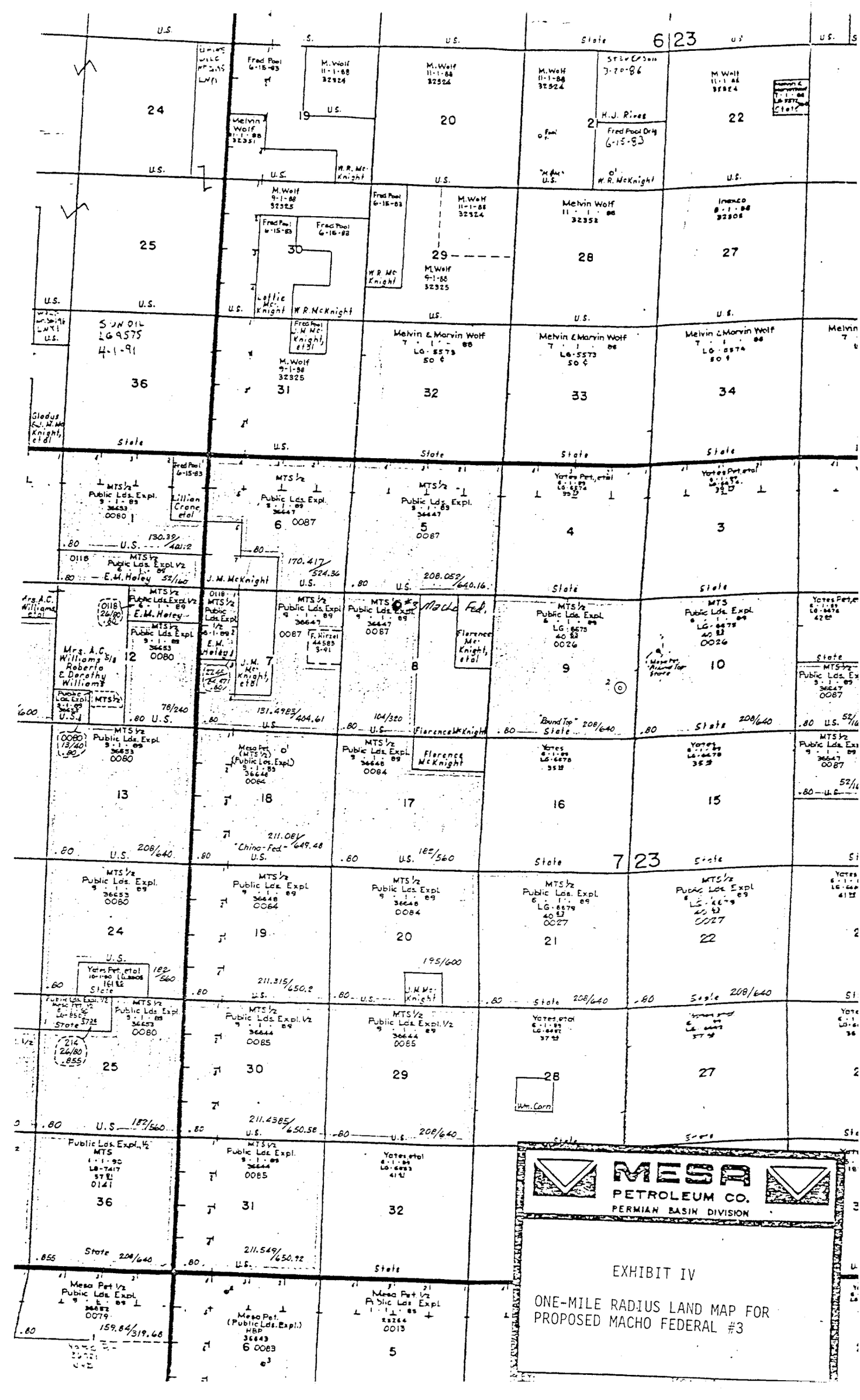
Horizontal Scale 1" = 50'

MESA PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT III

LOCATION CONSTRUCTION

BY: REM
DATE: 3-5-80
DRAWN BY: MLP
SCALE: AS NOTED


MESA
PETROLEUM CO.
PERMIAN BASIN DIVISION
EXHIBIT IV
ONE-MILE RADIUS LAND MAP FOR
PROPOSED MACHO FEDERAL #3

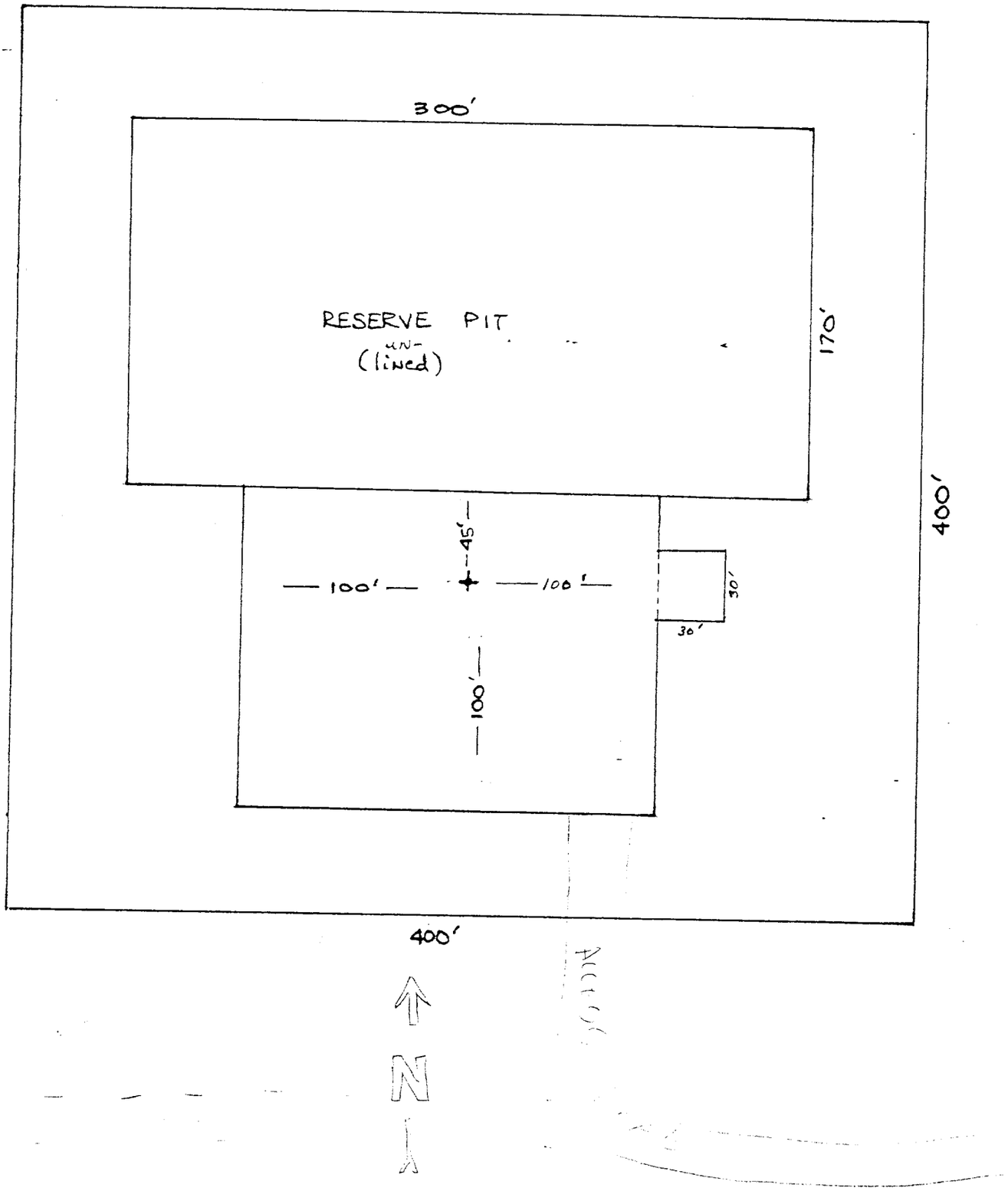


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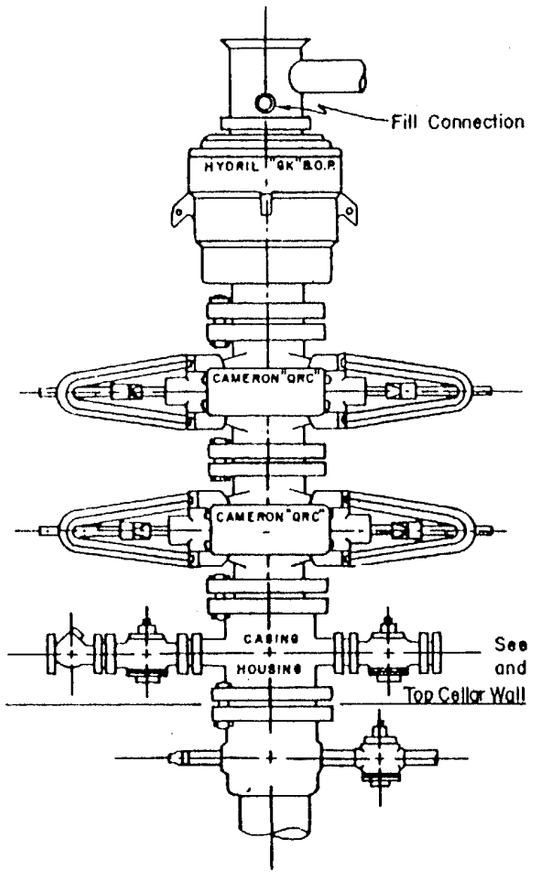
EXHIBIT V

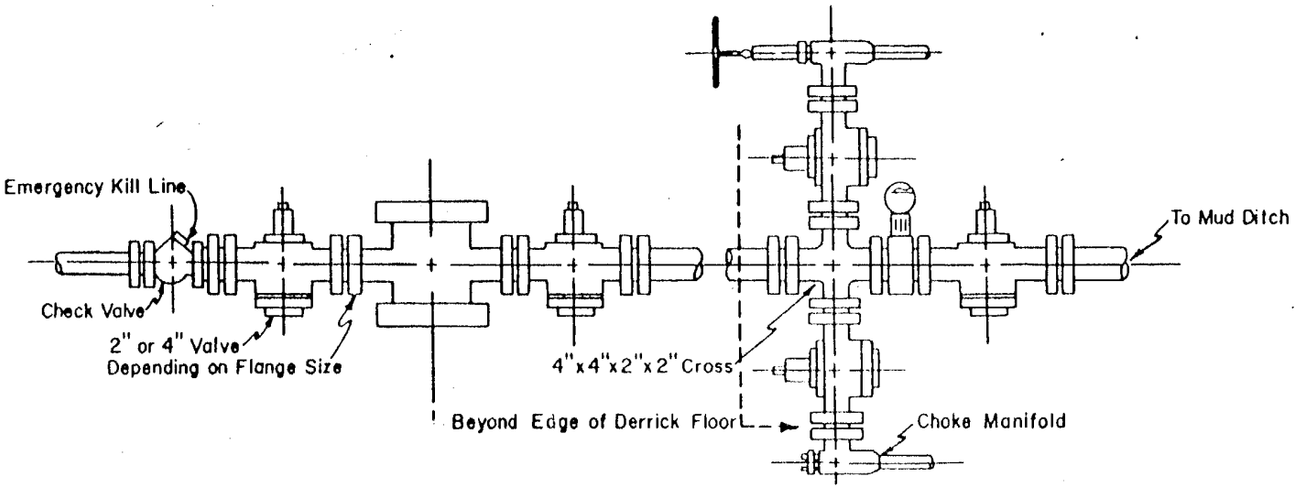
FOR PROPOSED MACHO FEDERAL #3

BY:
DATE:
CHECK BY:
SCALE:

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.

NOTE: HYDRIL not installed on shallow-low pressure wells.
RAM type BOPs are API 10" X 3000 PSI.

MESA
PETROLEUM CO.
PERMIAN BASIN DIVISION

E X H I B I T

V I

BY:
DATE:
DRAWN BY:
SCALE: