

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-005-61069

## 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

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 & 660' FELAt proposed prod. zone  
SAME

OIL &amp; GAS

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE U.S. GEOLOGICAL SURVEY  
25 MILES NORTH OF ROSWELL ROSWELL, NEW MEXICO15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest dirg. unit line, if any) 660'/1980'16. NO. OF ACRES IN LEASE  
2209.1317. NO. OF ACRES ASSIGNED  
TO THIS WELL  
16018. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT. 5800'19. PROPOSED DEPTH  
3400'20. ROTARY OR CABLE TOOLS  
ROTARY21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
3985.4' GR22. APPROX. DATE WORK WILL START\*  
SEPTEMBER 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#	1400'	SURFACE CIRCULATE
7 7/8"	4 1/2"	10.5#	3400'	SUFFICIENT TO ISOLATE WTR. & O&G

Propose to drill 12 1/4" hole to approximately 1400' 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.

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

JULY 23, 1981

(This space for Federal or State office use)

PERMIT NO.

APPROVED

APPROVAL DATE

APPROVED BY

GEORGE H. STEWART

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

FOR

JAMES A. GILLHAM  
DISTRICT SUPERVISOR

\*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-85

All distances must be from the outer boundaries of the Section.

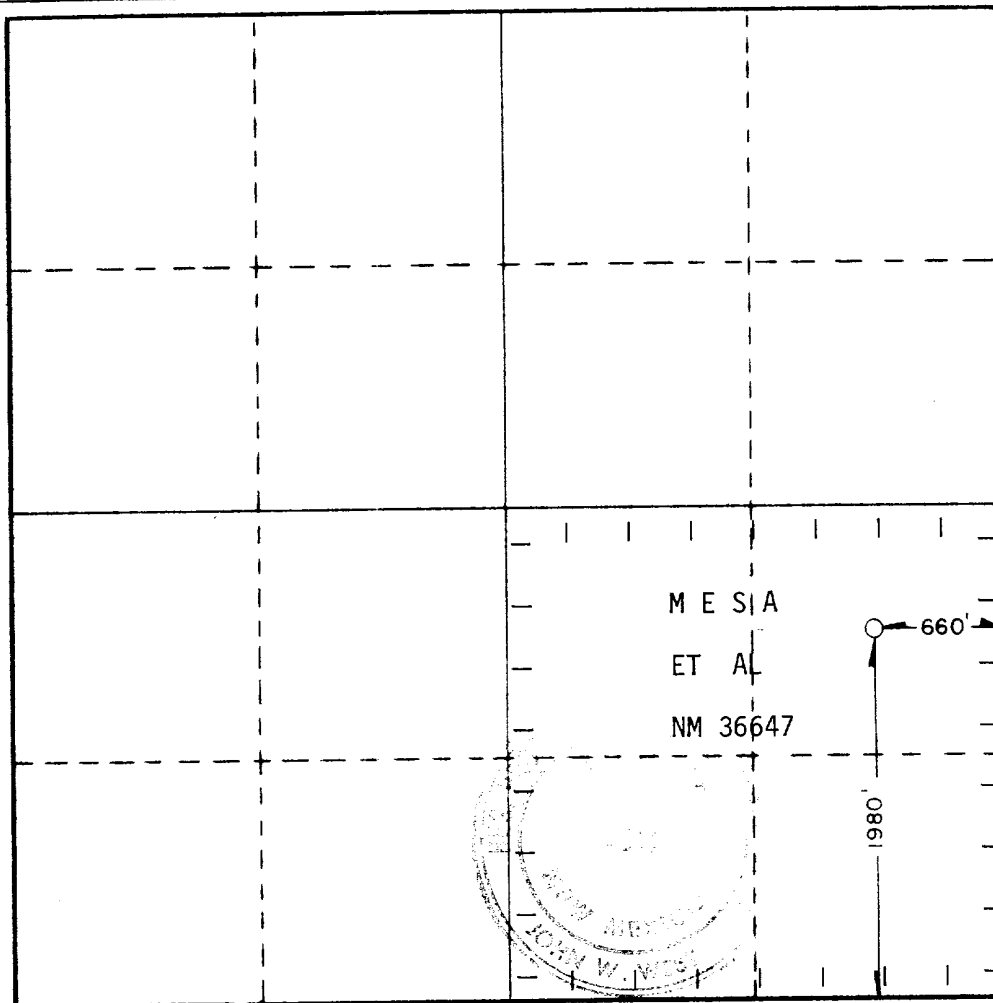
Operator <b>Mesa Petroleum Co.</b>			Lease <b>Macho Federal</b>		Well No. <b>1</b>
Unit Letter <b>I</b>	Section <b>5</b>	Township <b>7 South</b>	Range <b>23 East</b>	County <b>Chaves</b>	
Actual Footage Location of Well: <b>1980</b> feet from the <b>south</b> line and <b>660</b> feet from the <b>east</b> line					
Ground Level Elev. <b>3985.4</b>	Producing Formation <b>ABO</b>		Pool <b>UNDESIGNATED</b>	Dedicated Acreage: <b>SE/4 160</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 \_\_\_\_\_

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 23, 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.

**6-28-81**

Date Surveyed

Registered Professional Engineer  
and/or Land Surveyor

*John W. West*

Certificate No. **JOHN W. WEST 678**  
**PATRICK A. ROMERO 6665**  
**Ronald J. Eldon 3239**

0 330 660 990 1320 1650 1980 2310 2640 2000 1800 1000 500 0

APPLICATION FOR DRILLING

MESA PETROLEUM CO.  
MACHO FEDERAL #1  
1980' FSL & 660' FEL, SEC 5, T7S, R23E  
CHAVES COUNTY, NEW MEXICO

LEASE NO: NM 36647

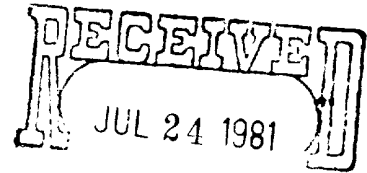
In conjunction with Form 9331-C, Application For Permit to Drill subject well, the following additional information is provided:

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	611'
Yeso	789'
Tubb	2137'
Abo	2772'
Hueco	3351'
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. 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 1400' 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.

MULTI-POINT SURFACE USE AND OPERATION PI

MESA PETROLEUM CO.  
MACHO FEDERAL #1  
1980' FSL & 660' FEL, SEC 5, T7S, R23E  
CHAVES COUNTY, NEW MEXICO



LEASE NO: NM 36647

OIL & GAS  
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 25 miles north of Roswell, New Mexico.
- B. Directions: Travel North from Roswell on US Highway 285, to just past mile marker 132, turn West through cattleguard and travel 3 miles then North (2/10 mile before Ranch House) for 6/10 mile then turn Southwest (just after cattleguard) for 2/10 mile to the location.

2. Planned Access Road:

- A. Length and width: The new access road will be 12' wide (20' ROW) and approximately 2/10 mile long.

(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: None.
- D. Cut and Fill: In order for the location to be level, approximately 5' of cut from the east side will be moved to the west side for fill.

3. Location of Existing Wells:

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

## Multi-Point Surface Use and Operation Plan

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### 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: Unknown.

### 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.

## Multi-Point Surface Use and Operation Plan

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### 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 gently sloping to the south.
- 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 1/2 mile to the west.
- E. Residences and Other Structures: There are no residences or other structures in the vicinity of the proposed well.

# Multi-Point Surface Use and Operation Plan

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- F. Land Use: Grazing.
- G. Surface Ownership: The wellsite is on private surface (Bronson Corn).
- 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:

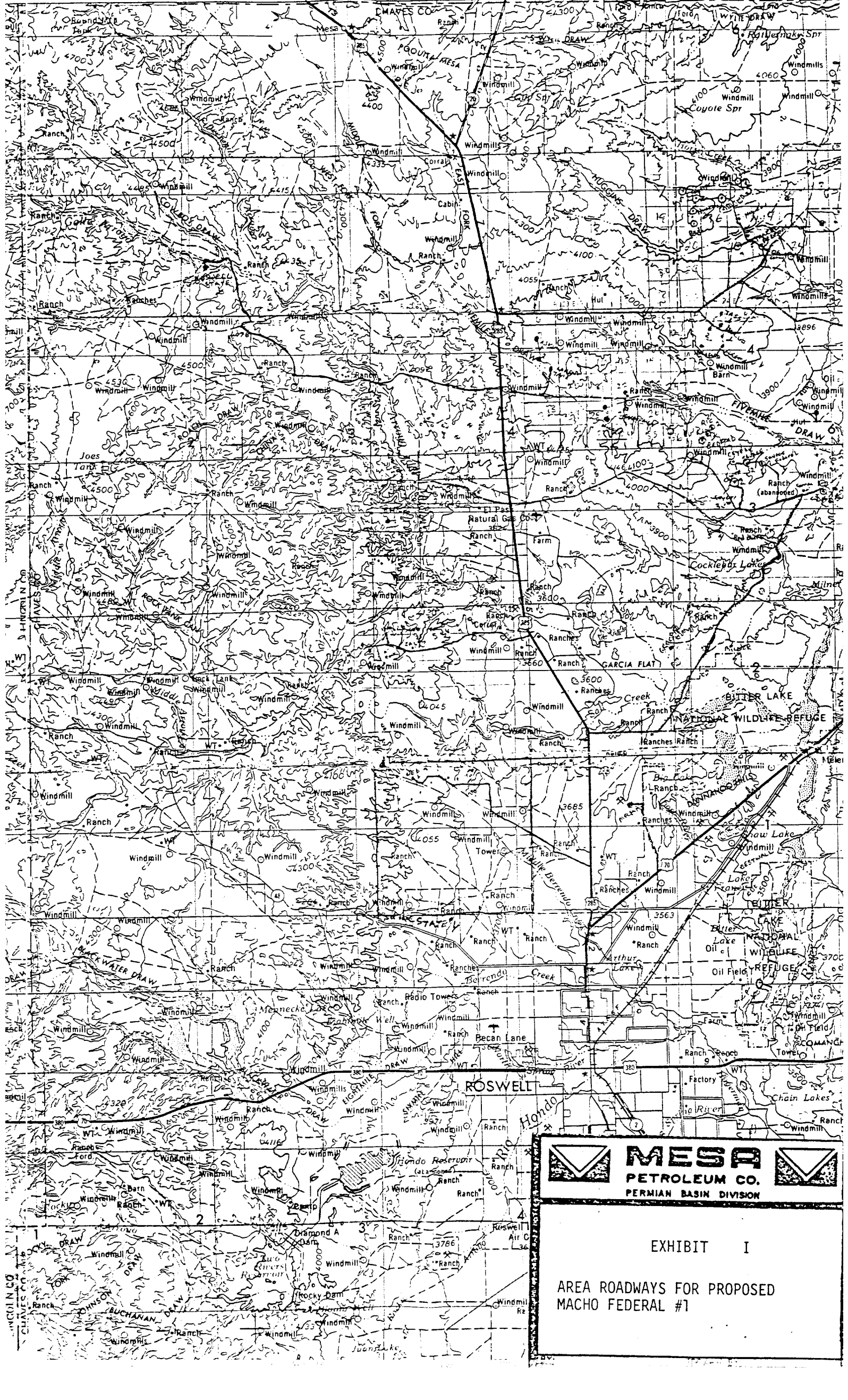
I hereby certify that I, or person under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated 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.

July 23, 1981

DATE

*Michael P. Houston*

MICHAEL P. HOUSTON  
OPERATIONS MANAGER





**MESA**  
PETROLEUM CO.  
PERMIAN BASIN DIVISION

EXHIBIT I

AREA ROADWAYS FOR PROPOSED  
MACHO FEDERAL #1



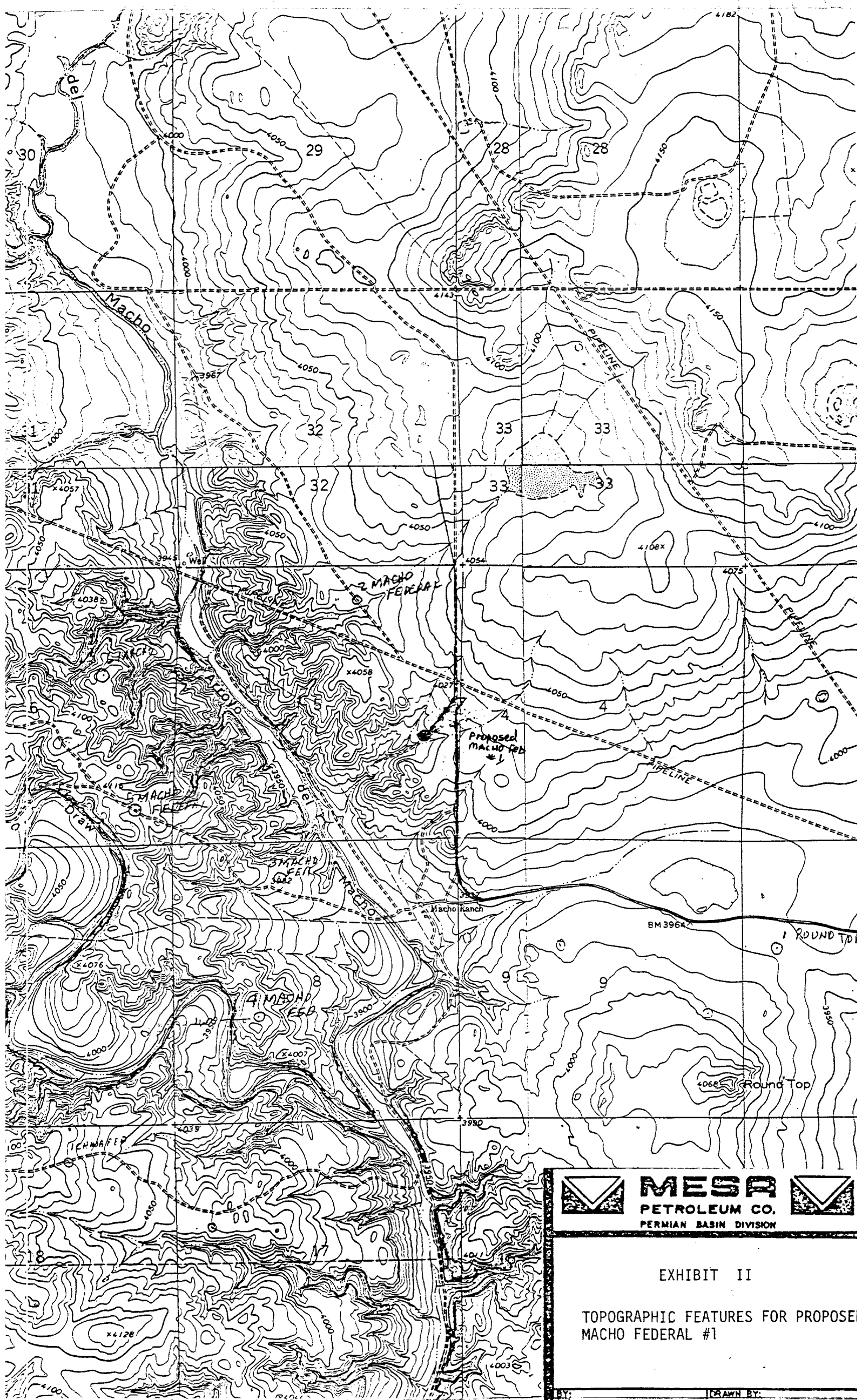
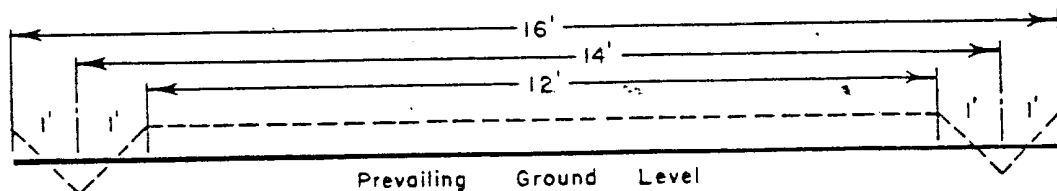


EXHIBIT II

TOPOGRAPHIC FEATURES FOR PROPOSED  
MACHO FEDERAL #1

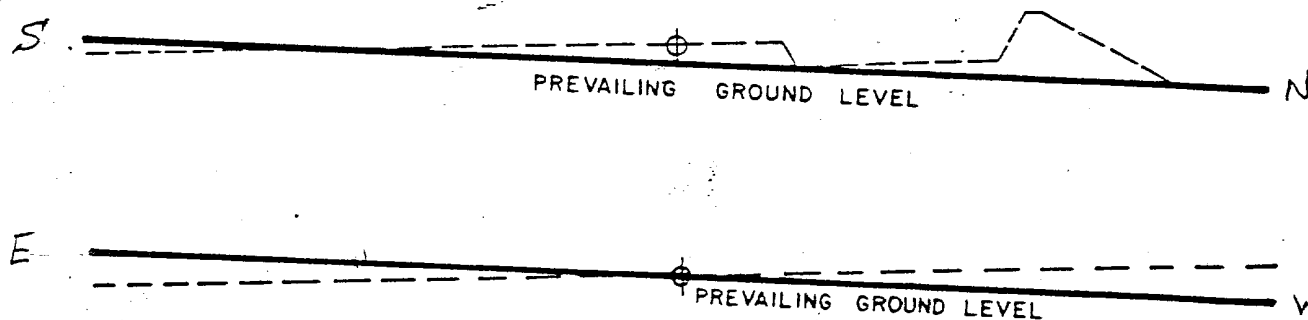
BY: \_\_\_\_\_ DRAWN BY: \_\_\_\_\_

R - O - W 16'



### ROADWAY CROSS SECTION

Horizontal Scale 1" = 3'



### LOCATION CROSS SECTION

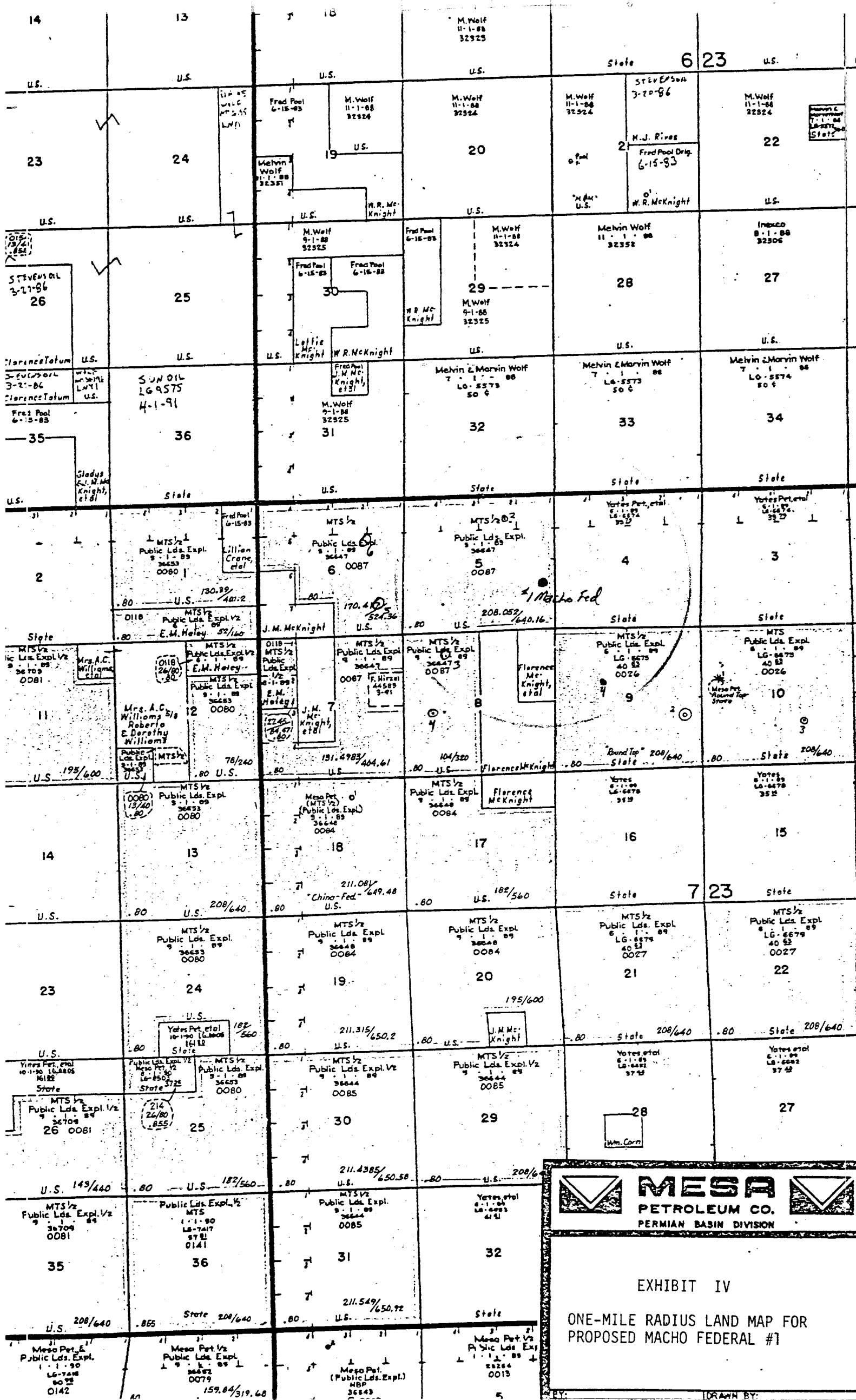
Horizontal Scale 1" = 50'

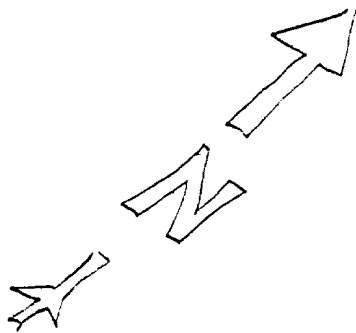
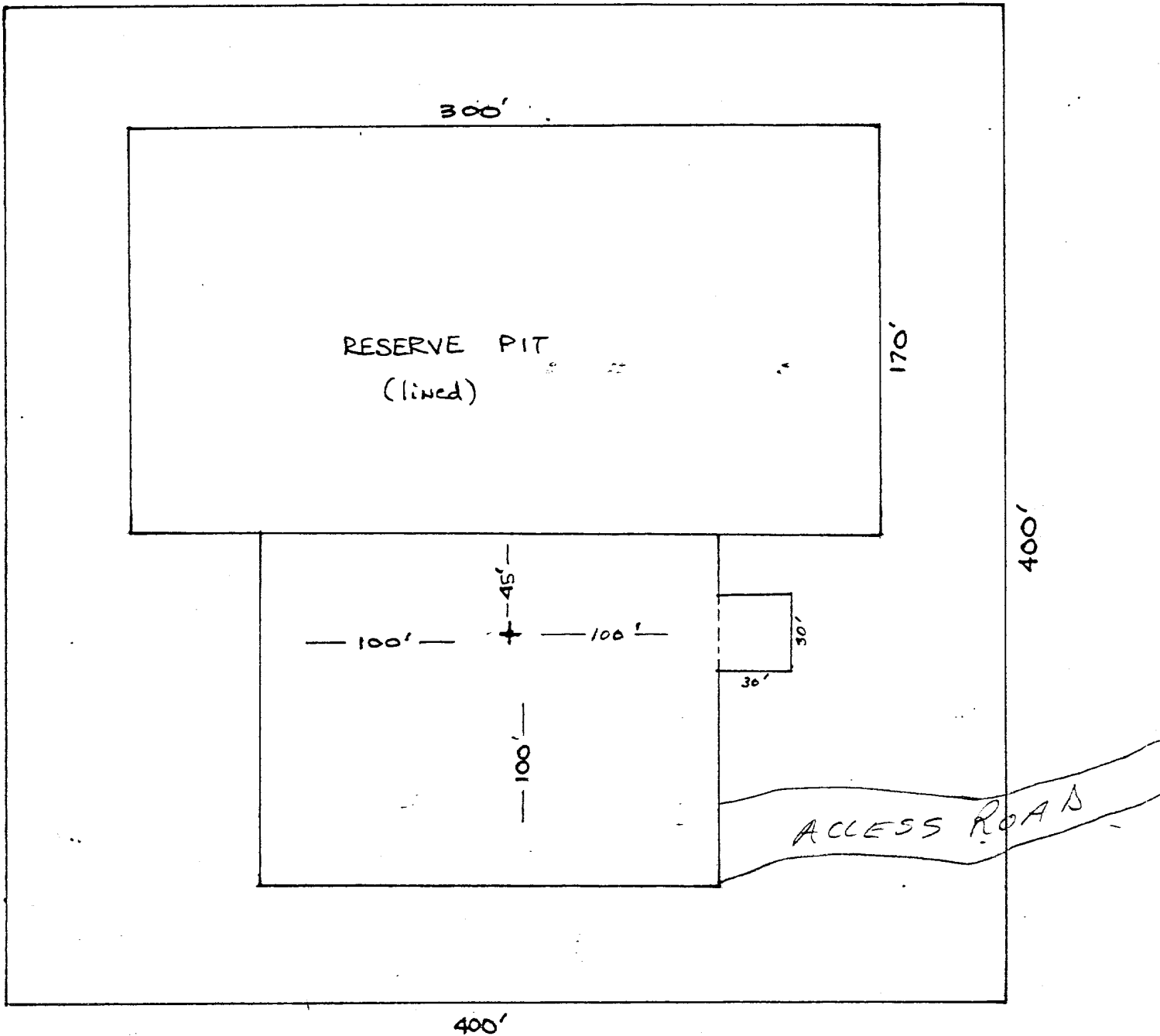




## EXHIBIT III

### LOCATION CONSTRUCTION

BY: REM  
DATE: 3-5-60  
DRAWN BY: MIP  
SCALE: AS NOTED





	<b>MESA</b> PETROLEUM CO. PERMIAN BASIN DIVISION	
EXHIBIT V		
PROPOSED MACHO FEDERAL #1		
BY:	DRAWN BY:	