

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## 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

660' FNL &amp; 660' FEL

At proposed prod. zone

SAME

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

30 MILES NORTH/NORTHEAST OF ROSWELL

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

660'

## 16. NO. OF ACRES IN LEASE

513.01'

## 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.

3.5 miles

## 19. PROPOSED DEPTH

4300'

## 20. ROTARY OR CABLE TOOLS

ROTARY

## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

4067.6' GR

## 22. APPROX. DATE WORK WILL START\*

JUNE 4, 1981

## 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#	800'	CIRCULATE TO SURFACE
11"	8 5/8"	24#	1600'	SUFFICIENT TO ISOLATE WTR. O&G
7 7/8"	4 1/2"	10.5#	4300'	SUFFICIENT TO COVER ALL PAY

Propose to drill 17 1/2" surface hole to 800' or deeper on air to set 13 3/8" surface casing. Will cement to surface then reduce hole to 11" to drill to 1600'. Will set 8 5/8" casing if water zones have been encountered or omit if not. Will reduce hole to 7 7/8" and drill to total depth on air, foam, or mud as required. After log evaluation, 4 1/2" casing may be run and cemented with sufficient amounts and kinds to isolate and seal off any fresh water, oil, or gas zones encountered.

Gas Sales Are Dedicated To Transwestern Pipeline Co.

XC: USGS (6), TLS, GEN 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

APRIL 22, 1981

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

(C. S. J.) GEORGE M. STEWART

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

MAY 14 1981

FOR

JAMES A. GILHAM  
DISTRICT SUPERVISOR

\*See Instructions On Reverse Side

**N MEXICO OIL CONSERVATION COMMISS**  
**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.

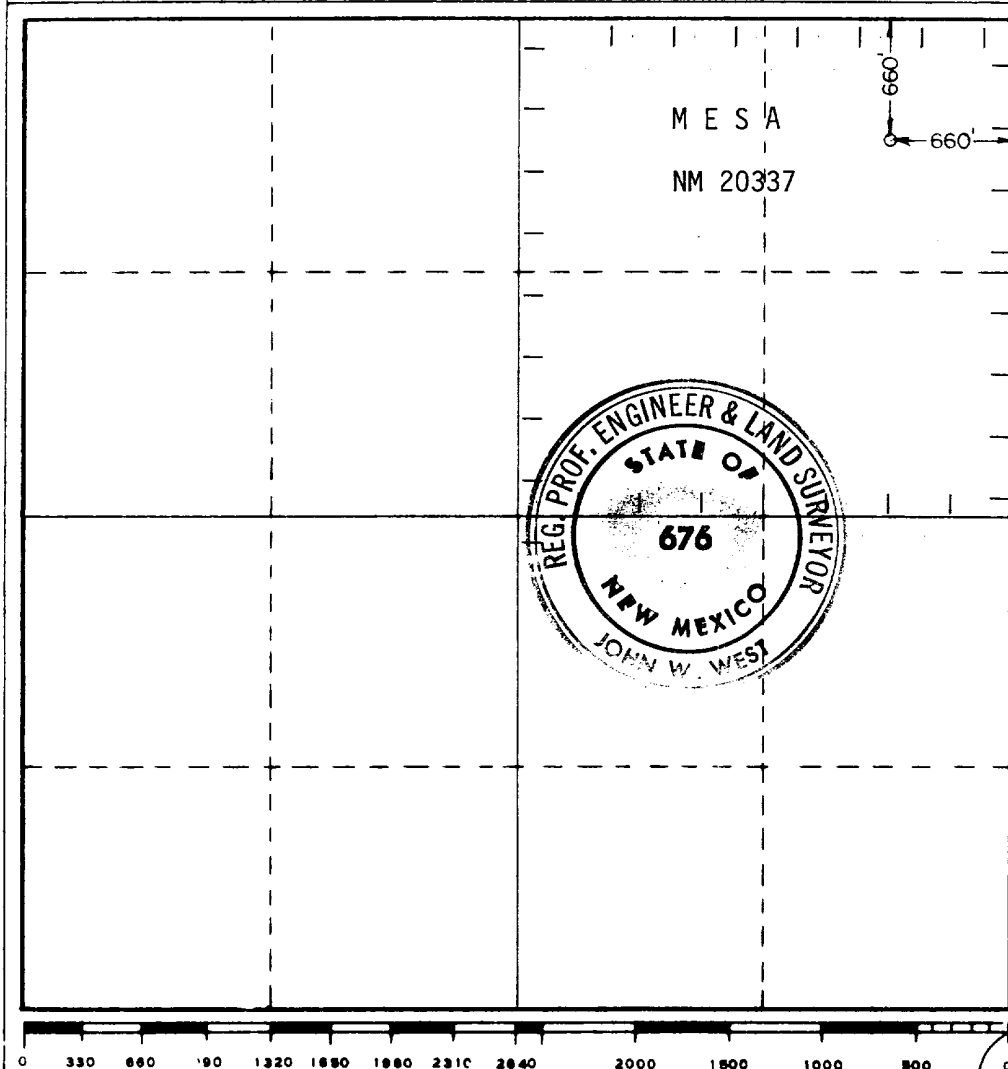
Operator <b>Mesa Petroleum Co.</b>			Lease <b>Bedford Federal</b>		Well No. <b>2</b>
Unit Letter <b>A</b>	Section <b>18</b>	Township <b>6 South</b>	Range <b>25 East</b>	County <b>Chaves</b>	
Actual Footage Location of Well: <b>660</b> feet from the <b>North</b> line and <b>660</b> feet from the <b>East</b> line					
Ground Level Elev. <b>4067.6</b>	Producing Formation <b>ABO</b>	Pool <b>UNDESIGNATED</b>		Dedicated Acreage: <b>NE/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  
**APRIL 22, 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.

Date Surveyed  
**April 11, 1981**

Registered Professional Engineer and/or Land Surveyor

*John W. West*  
 Certificate No. **JOHN W. WEST 676**  
**PATRICK A. ROMERO 6663**  
**Ronald J. Eidsen 3239**

M.O.C.D. COPY

Form 9-331  
(May 1963)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM 20337

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

BEDFORD FEDERAL

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

UNDESIGNATED ABO

11. SEC., T., R., M., OR BLE. AND  
SURVEY OR AREA

SEC 18, T6S, R25E

12. COUNTY OR PARISH  
CHAVES13. STATE  
NEW MEXICO

1.

OIL ☐ GAS ☒  
WELL WELL OTHER

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.\*  
See also space 17 below.)  
At surface

660' FNL &amp; 660' FEL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4067.6' GR

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

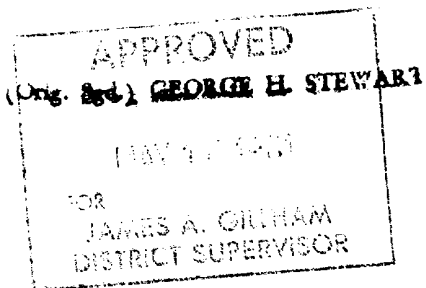
TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐(Other) ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON\* ☐CHANGE PLANS ☐MOVED LOCATION ☒

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐(Other) ☐REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT\* ☐(NOTE: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The location for the proposed well has been relocated due to the presence of archaeological material of a significant nature on the original location. Six copies of the amended Application To Drill and Exhibits are attached reflecting this change.



APR 24 1981

XC: USGS (3), TLS, ROSWELL, MEC, PARTNERS, FILE

18. I hereby certify that the foregoing is true and correct

SIGNED

*R. E. Mark*

TITLE

REGULATORY COORDINATOR

DATE APRIL 22, 1981

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

XC: USGS (3), MEC, ROSWELL, TLS, PARTNERS, FILE

APPLICATION FOR DRILLING

MESA PETROLEUM CO.  
BEDFORD FEDERAL #2  
660' FNL & 660' FEL, SEC 18, T6S, R25E  
CHAVES COUNTY, NEW MEXICO

LEASE NO: NM 20337

In conjunction with Form 9-331C, 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:

SEVEN RIVERS	SURFACE
SAN ANDRES	730'
GLORIETTA	1480'
ABO	3610'
HUECO	4260'
3. Hydrocarbon bearing strata may occur in the Abo formation. No fresh water is expected to be encountered below 800'.
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 13 3/8" casing will be set at approximately 800' to protect any fresh water zones and cemented to the surface. The 8 5/8" casing will be set at approximately 1600' if water zones have been encountered or omitted if not and ram type preventers used to ensure any water, gas, or oil zones encountered are isolated and shut off down to the casing point if run. 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.
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 fifteen days with completion operations to follow as soon as a completion unit is available.

## MULTI-POINT SURFACE USE AND OPERATION PLAN

MESA PETROLEUM CO.  
BEDFORD FEDERAL #2  
660' FNL & 660' FEL, SEC 18, T6S, R25E APR 24 1981  
CHAVES COUNTY, NEW MEXICO

LEASE NO: NM 20337

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 30 miles north/northeast of Roswell, New Mexico.
- B. Directions: Travel north on US Highway 285 from Roswell for approximately 24 miles (mile marker 139) and turn east on the County road for 8 1/2 miles. Turn south thru cattleguard on new lease road for 6/10 mile to the location.

### 2. Planned Access Road

- A. Length and width: The new access road will be 12' wide (16' ROW) and approximately 6/10 mile of new road.  
  
(See Exhibit II for details).
- 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: one required
- D. Cut and Fill: In order for the location to be level, approximately 3' of cut from the north side will be moved to the south side 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.

## Multi-Point Surface Use and Operation Plan

Page 2

### 5. Location and Type of Water Supply

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

### 6. Source of Construction Materials

Caliche for surfacing the road and the wellsite pad will be obtained by the dirt contractor from the Federal Government or private sources. Top soil from the location will be stockpiled near the location for future rehabilitation use. No surface materials will be disturbed except for those necessary for the actual grading and leveling of the drillsite and access road. Probable pit is located: NE/4, SEC 22, T5S, R24E.

### 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 will 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: The vegetative cover consists of Tabosa and other prairie grasses, creosote bush, yucca, cactus, prairie flowers and other miscellaneous desert growth. Wildlife in the area probably includes those typical of semi-arid desert land. The area is used for grazing.
- D. Ponds and Streams: Five Mile Draw is approximately 1.5 miles to the south.
- E. Residences and Other Structures: There are no residences or other structures in the vicinity of the proposed well.
- F. Land Use: Grazing.
- G. Surface Ownership: The wellsite is on private surface (B.M. 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.

# Multi-Point Surface Use and Operation Plan

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## 12. Operator's Representatives:

J. James  
P. O. Box 298  
Roswell, New Mexico 88201  
(505-623-0989 Unit #4039)

M. P. Houston  
1000 Vaughn Building  
Midland, Texas 79701  
(915-683-5391) - Office  
(915-694-3442) - Home

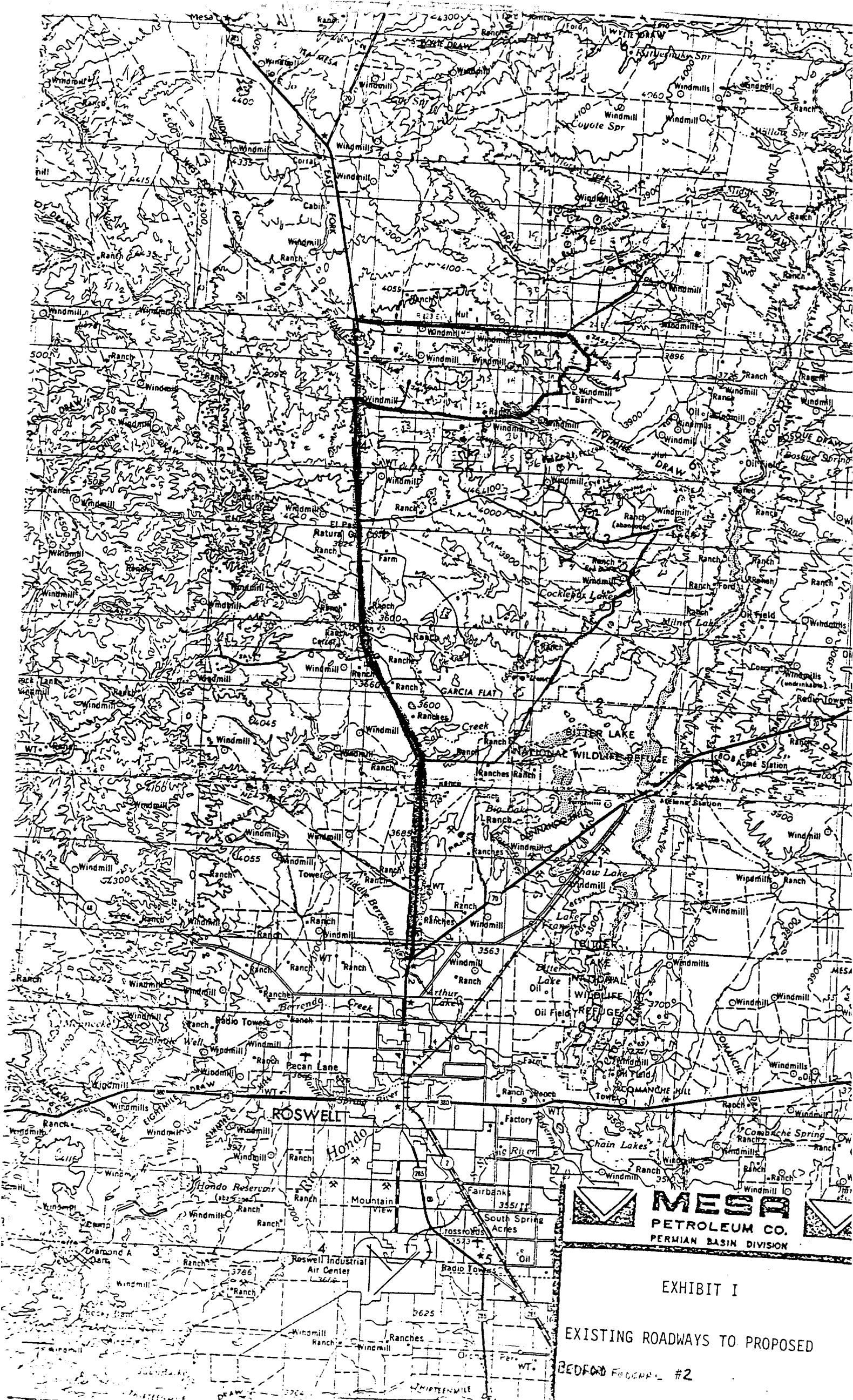
## 13. Certification

I hereby certify that I, or persons 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.

April 22, 1981  
DATE

Michael P. Houston  
Michael P. Houston  
Operations Manager





**MESA**  
PETROLEUM CO.  
PERMIAN BASIN DIVISION

EXHIBIT I  
EXISTING ROADWAYS TO PROPOSED  
BEDFORD FEDERAL #2

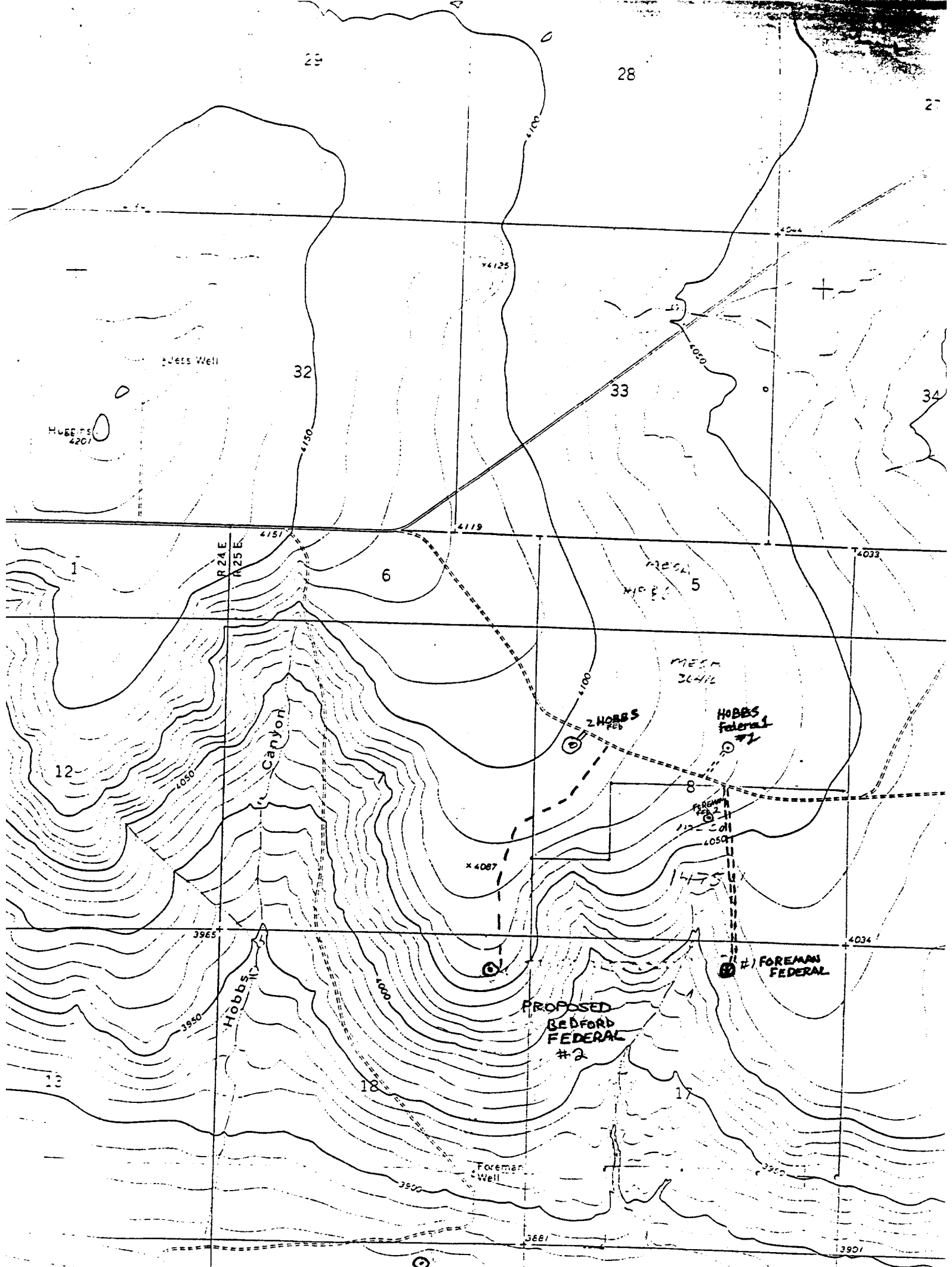


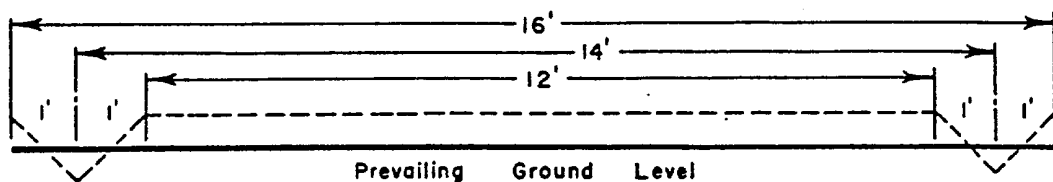
EXHIBIT II

TOPOGRAPHIC FEATURES FOR  
PROPOSED BEDFORD FEDERAL #2

ANNON DRAW  
QUAD

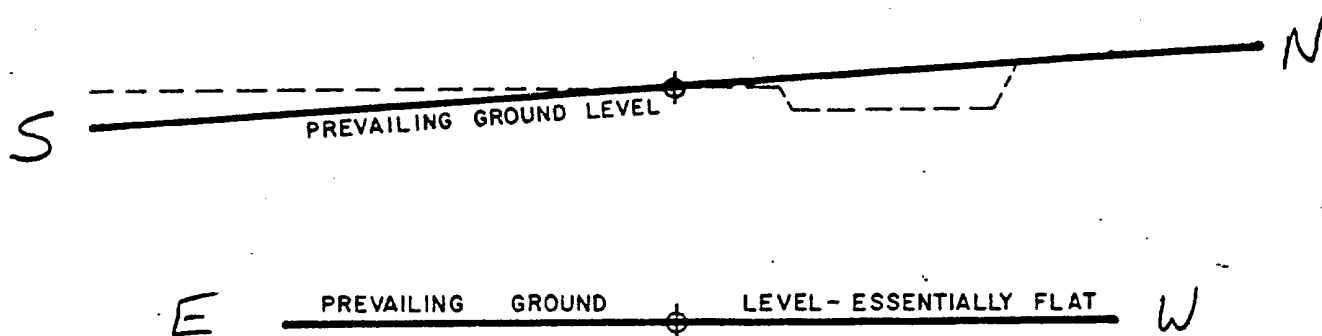
Sec 18, T6S, R25E

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

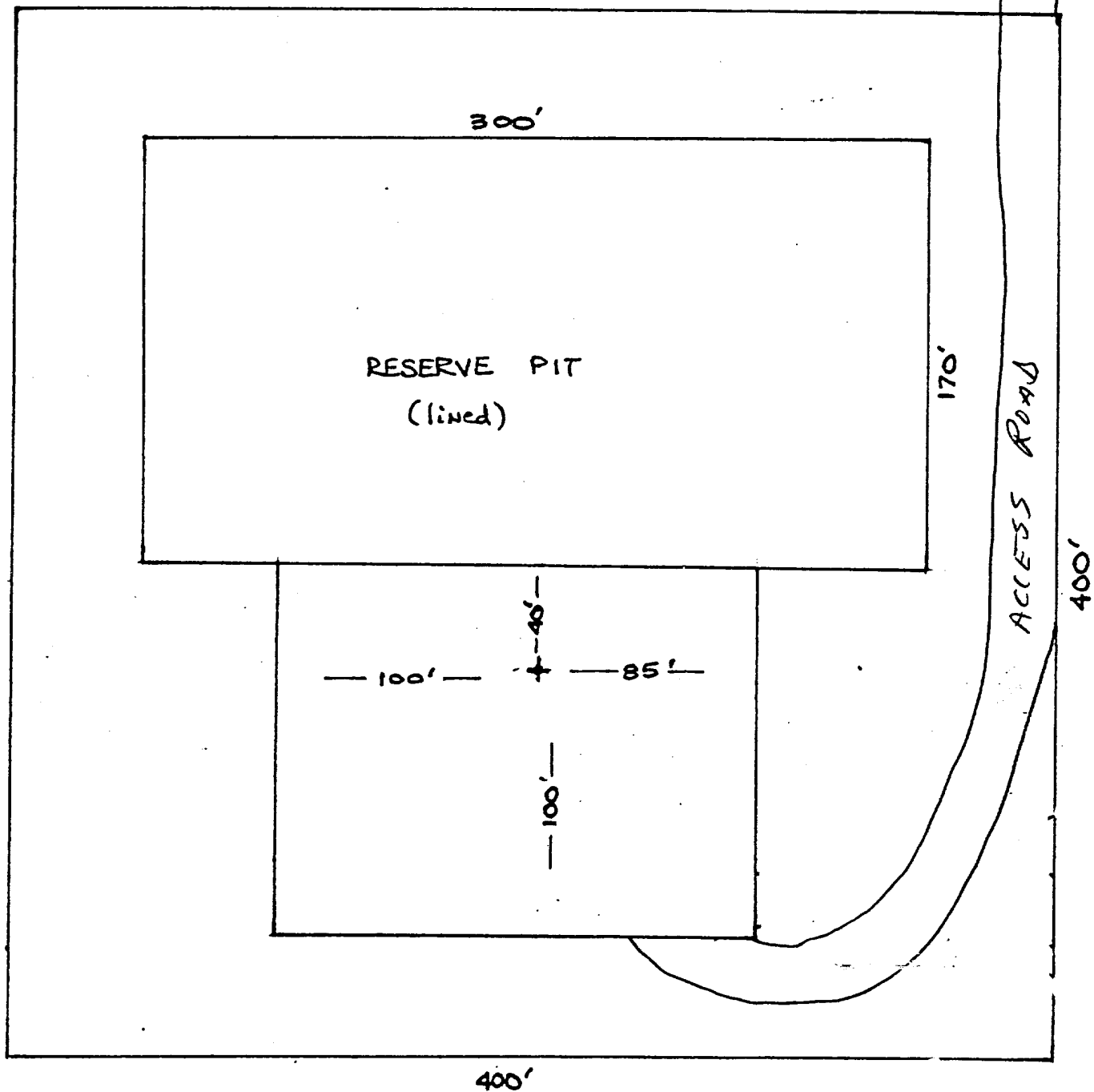
LOCATION CONSTRUCTION



GEDFORD FEDERAL #2

BY REM  
DATE 3-5-80

DRAWN BY: MJP  
SCALE: AS NOTED





	<b>MESA</b> PETROLEUM CO. PERMIAN BASIN DIVISION	
EXHIBIT V		
BELLING FEDERAL # 2		
BY: DATE:	DRAWN BY: SCALE:	