

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-005-61005

C/SF
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL ☒ DEEPEN ☐ PLUG BACK ☐		5. LEASE DESIGNATION AND SERIAL NO. NM 19825	
b. TYPE OF WELL OIL WELL ☐ GAS WELL ☒ OTHER ☐		6. IF INDIAN, ALLOTTEE OR TRUST LAND RECEIVED	
2. NAME OF OPERATOR MESA PETROLEUM CO.		7. UNIT AGREEMENT NAME JUN 23 1981	
3. ADDRESS OF OPERATOR 1000 VAUGHN BUILDING/MIDLAND, TEXAS 79701		8. FARM OR LEASE NAME DORIS FEDERAL O. C. D.	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1980' FSL & 1980' FEL At proposed prod. zone SAME		9. WELL NO. 4	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 35 MILES NORTH/NORTHEAST OF ROSWELL, NEW MEXICO		10. FIELD AND POOL, OR WILDCAT X UNDESIGNATED ABO	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 1980'/660'		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SEC 11, T5S, R24E	
16. NO. OF ACRES IN LEASE 640		12. COUNTY OR PARISH CHAVES	
17. NO. OF ACRES ASSIGNED TO THIS WELL 160		13. STATE NEW MEXICO	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2900'		20. ROTARY OR CABLE TOOLS ROTARY	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3906.0' GR		22. APPROX. DATE WORK WILL START* JULY 5, 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#	4350'	SUFFICIENT TO COVER ALL PAY

Propose to drill 12 1/2" hole on air or foam to 800' or deeper to set 13 3/8" surface casing. Will cement to surface then reduce hole to 11" and 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", install ram type BOPs, and drill to total depth using 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 To Transwestern Pipeline Company.

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. S. Mark TITLE REGULATORY COORDINATOR DATE MAY 25, 1981

(This space for Federal or State office use)

PERMIT NO.

(Orig. Sgd.) GEORGE H. STEWART

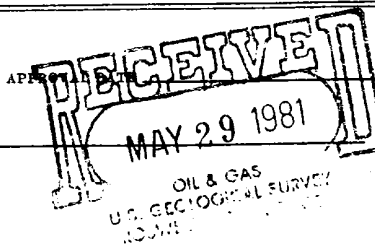
APPROVED BY

CONDITIONS OF APPROVAL, JUN 22 1981

FOR

JAMES A. GILLHAM
DISTRICT SUPERVISOR

*See Instructions On Reverse Side



Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

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.

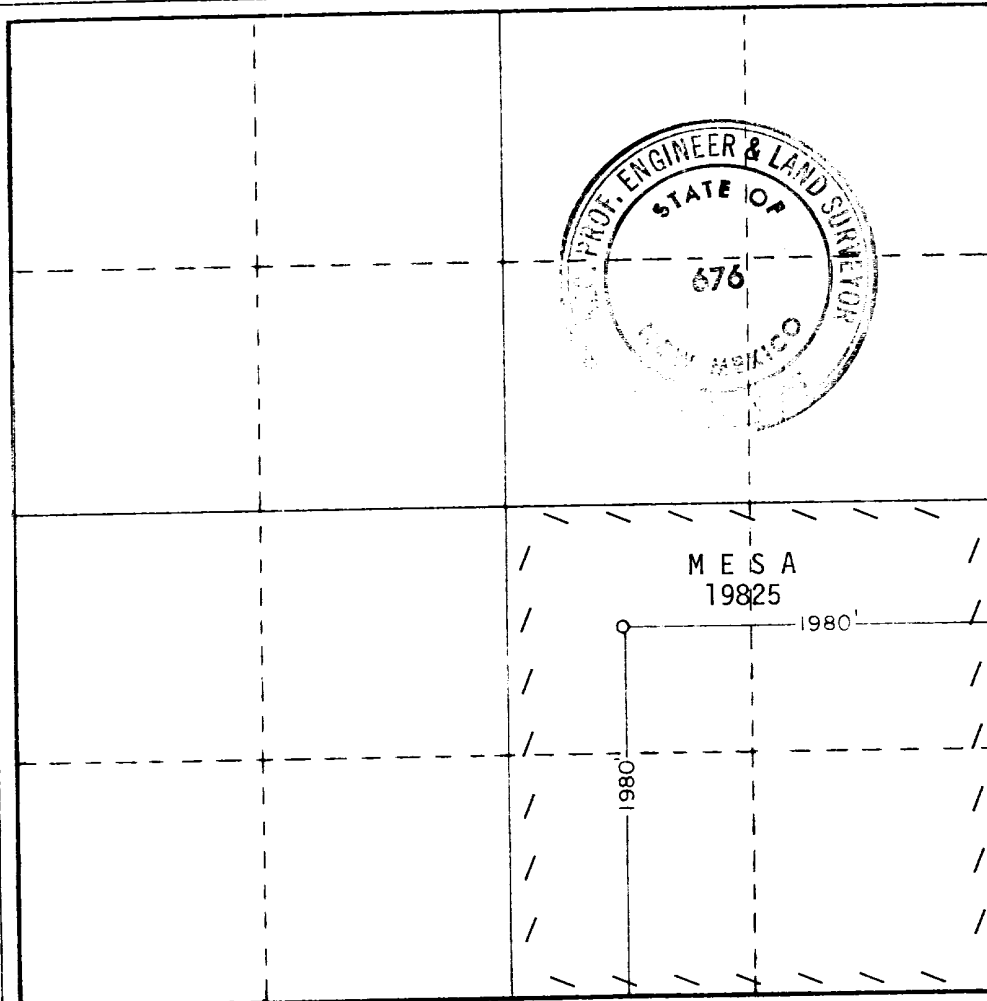
Operator Mesa Petroleum Co.		Lease Doris Federal		Well No. 4
Tract Letter J	Section 11	Township 5 South	Range 24 East	County Chaves
Actual Footage Location of Well: 1980 feet from the south line and 1980 feet from the east line				
Ground Level Elev. 3906.0	Producing Formation ABO	Pool UNDESIGNATED	Dedicated Acreage: SE/4 160 A. P. 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 _____

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

5-27-81

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

4-29-81

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. **JOHN W. WEST 676**
PATRICK A. ROMERO 6863
Ronald J. Eidson 3239

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500

APPLICATION FOR DRILLING

MESA PETROLEUM CO.
DORIS FEDERAL #4
1980' FSL & 1980' FEL, SEC 11, T5S, R24E
CHAVES COUNTY, NEW MEXICO

LEASE NO: NM 19825

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

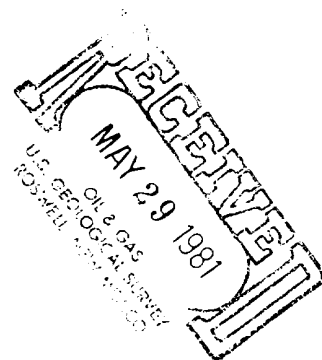
1. Applicable portions of the GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL LEASES, Roswell District, Geological Survey of September 1, 1980 will be adhered to.
2. Geological markers are estimated as follows:

SEVEN RIVERS	SURFACE
SAN ANDRES	530'
GLORIETTA	1370'
TUBB	2860'
ABO	3530'
HUECO	4290'
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 installed. 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. 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 GRCNL 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 IN

MESA PETROLEUM CO.
DORIS FEDERAL #4
1980' FSL & 1980' FEL, SEC 11, T5S, R24E
CHAVES COUNTY, NEW MEXICO

LEASE NO: NM 19825



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 35 miles north/northeast of Roswell, New Mexico.
- B. Directions: Travel north of Roswell on US Highway 285 for approximately 24 miles (marker 139) then travel east/northeast for 11.5 miles on county road. Turn west on lease road (Stancel Fed #1) and follow northwesterly (past the Stancel Fed #2 & Huggins Fed #1) and follow northeasterly for 8/10 mile to the Doris Fed #2 then northeasterly 1/2 mile to the location.

2. Planned Access Road

- A. Length and width: The new access road will be 12' wide (16' ROW) and approximately 5/10 mile of new road and 4 miles of ROW approved under APD's for the Stancel Fed #1 & #2, Huggins Fed #1 & Camack Fed #1 (1000' of road), and Doris Federal #2. (See USGS Records of the Roswell Area).

(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: One cattleguard will be installed.
- D. Cut and Fill: Location is essentially flat.

3. Location of Existing Wells

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

Multi-Point Surface Use and Operation Plan

Page 2

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 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: Probable pit is located: NE/4-Sec 22, T5S, R24#, Chaves County, New Mexico.

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 well-site 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 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 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: Huggins Draw is 1/2 mile 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 (E. P. Ewart).

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
(505-623-0989 Unit #4039)

Michael 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.

MAY 25, 1981

DATE

Michael P. Houston

MICHAEL P. HOUSTON
OPERATIONS MANAGER

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 ☐		5. LEASE DESIGNATION AND SERIAL NO. NM-19825	
b. TYPE OF WELL OIL WELL ☐ GAS WELL ☒ OTHER ☐		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 DOAIS Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1980' FSL & 1980' FEL		9. WELL NO. 4	
At proposed prod. zone SAME		10. FIELD AND POOL, OR WILDCAT Undesignated ABO	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 35 MILES NORTH/NORTHEAST OF ROSWELL, NEW MEXICO		11. SEC., T., E., M., OR BLM. AND SURVEY OR AREA Sec 11, T55 R24E	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1980' / 660	16. NO. OF ACRES IN LEASE 640	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. 2900'	19. PROPOSED DEPTH 4400'	20. ROTARY OR CABLE TOOLS ROTARY	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3906.0' GR		22. APPROX. DATE WORK WILL START* July 5, 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 water off
7-7/8"	4-1/2"	10.5#	4350'	Sufficient to cover all pay

Propose to drill 17-1/2" hole on air or foam to 800' or deeper to set 13-3/8" surface casing. Will cement to surface then reduce hole to 11" and 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", install ram type BOPs, and drill to total depth using 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 TO TRANSCENTRAL PIPELINE CO

XC: USGS(6), TCS, CEN RCDs, ACCRG, Roswell MEC, LAND PARTNERS, FILE
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to drill 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 _____ TITLE REGULATORY COORDINATOR DATE _____

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

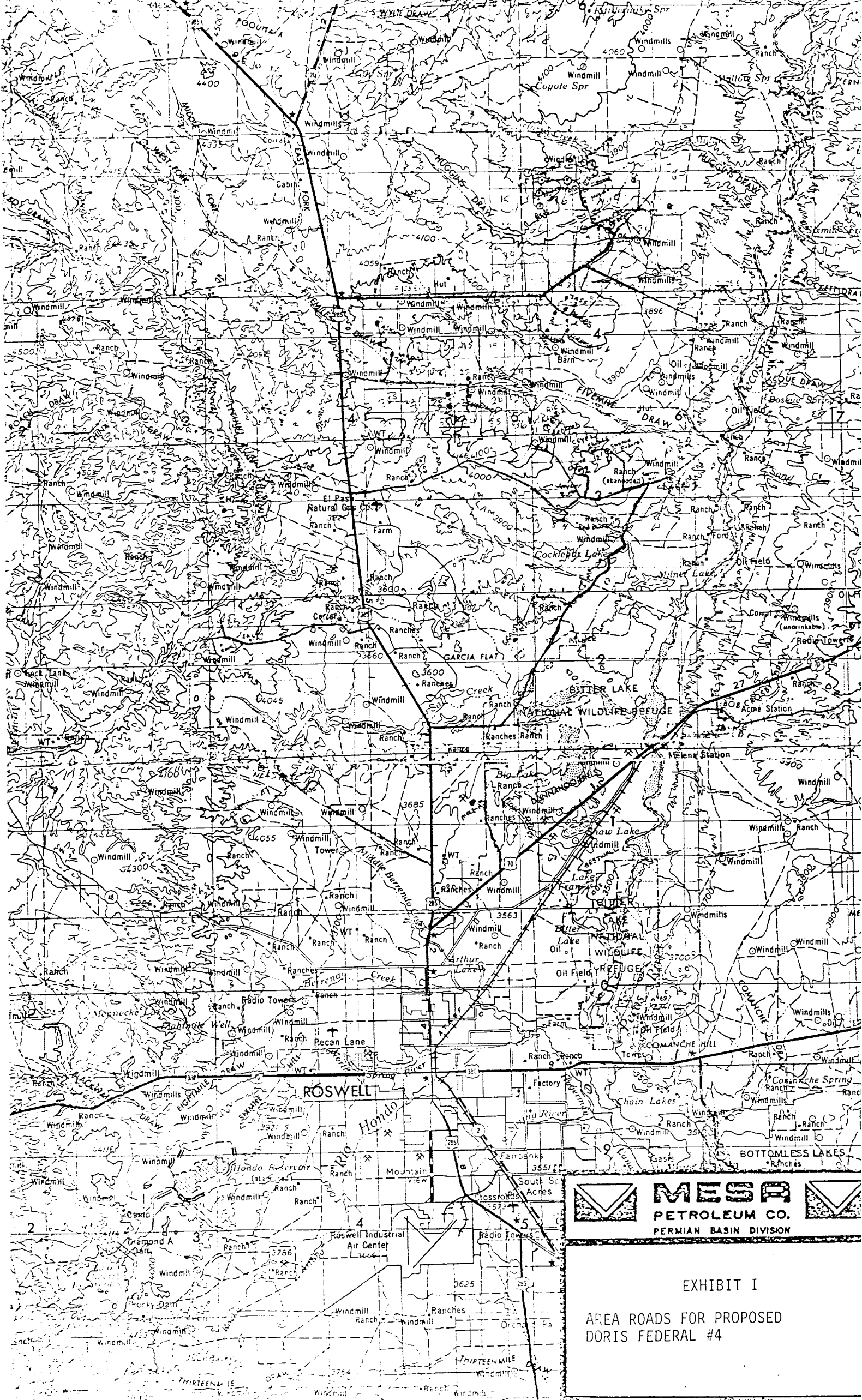


EXHIBIT I

AREA ROADS FOR PROPOSED
DORIS FEDERAL #4

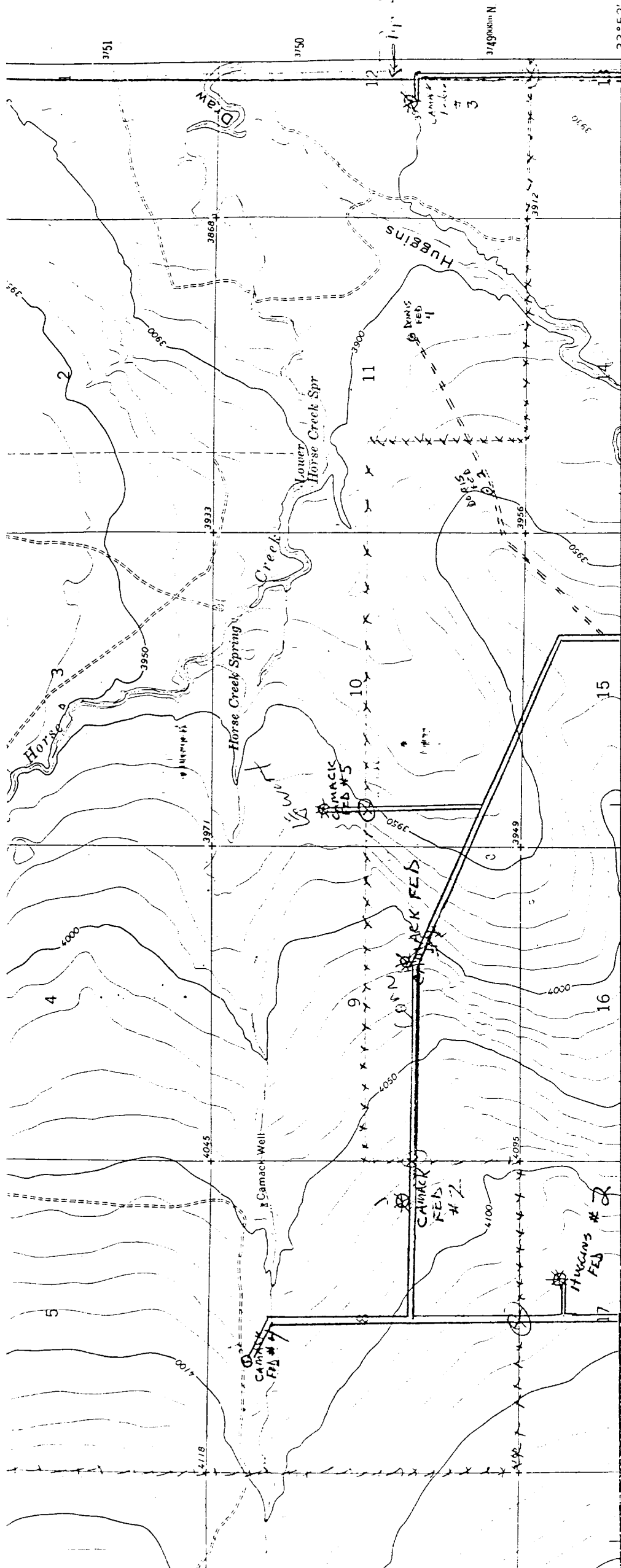


EXHIBIT II

TOPOGRAPHIC FEATURES FOR
PROPOSED DORIS FEDERAL #4

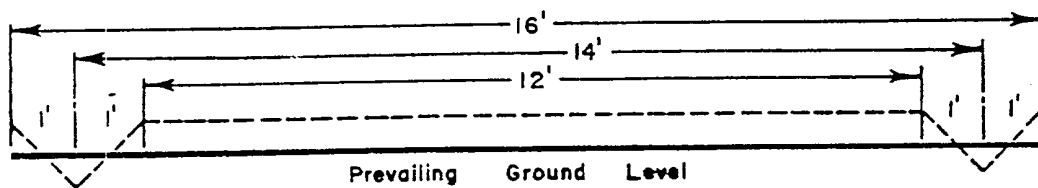
SWALLOW NEST CANYON, N. MEX.

N3352.5—W10422.5/7.5

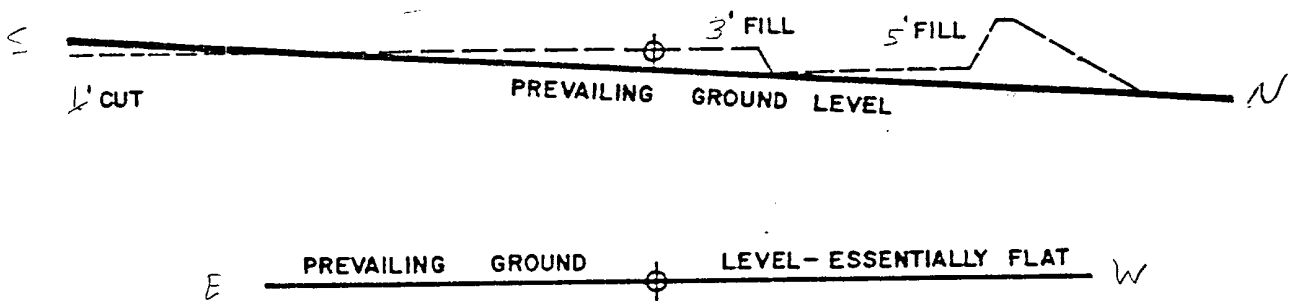
1967

AMS 5151 IV NW—SERIES V881

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

EXHIBIT IV
ONE-MILE RADIUS LAND MAP
FOR PROPOSED DORIS FEDERAL #4

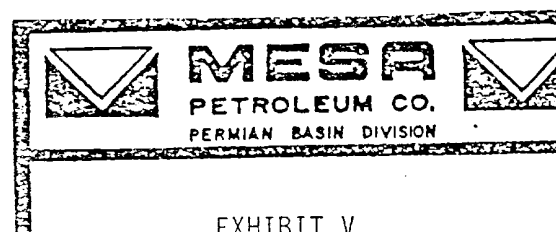
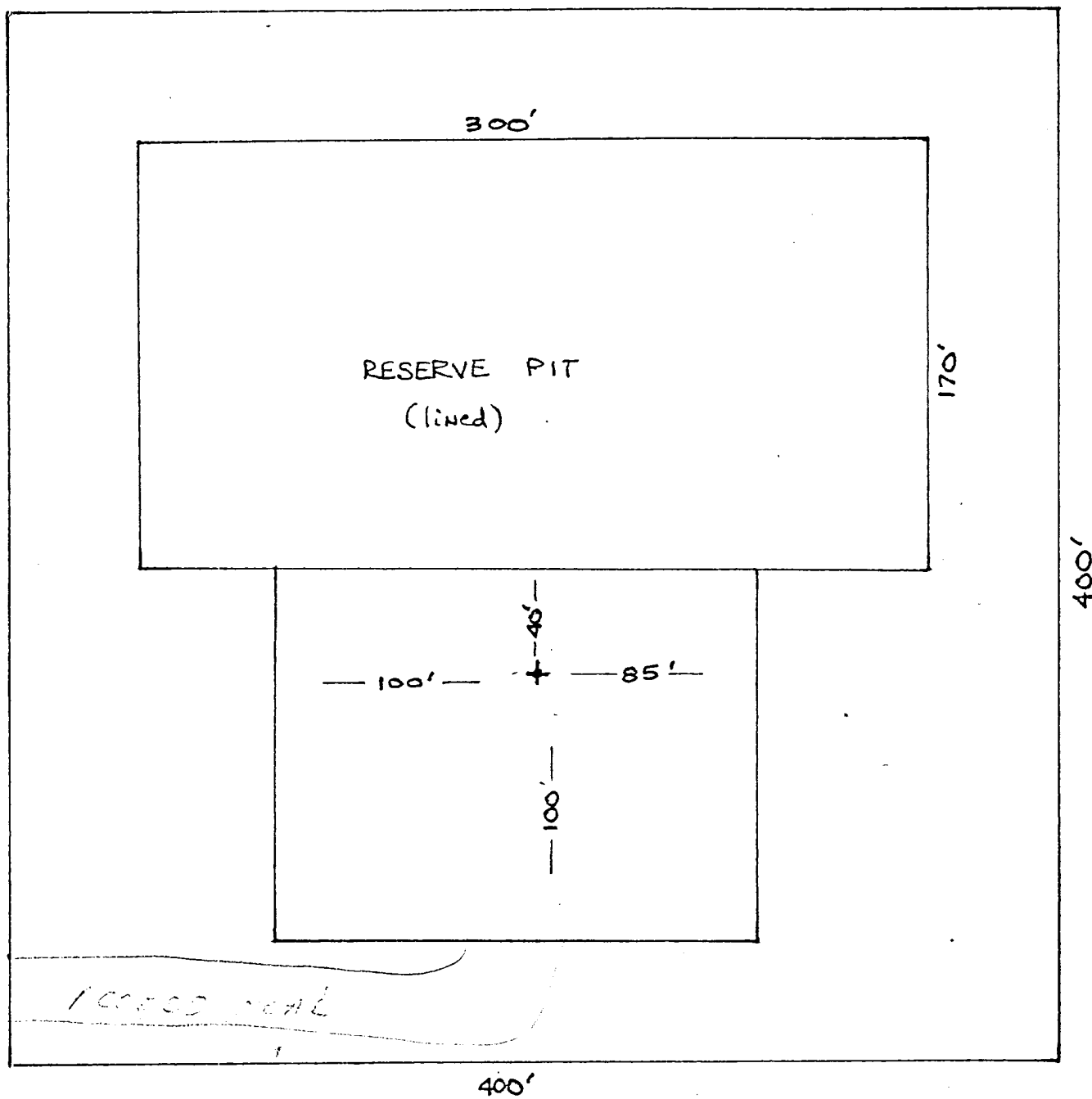


EXHIBIT V