

NM OIL CONS. COMMISSION  
Draft DD  
ARTESIA, NEW MEXICO  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE\*  
(Other inst. ins on  
reverse side)Form approved.  
Budget Bureau No. 42-B1425.

30-005-61082

## 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, TX 79701

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface 660' FNL &amp; 710' FEL

At proposed prod. zone

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

12 MILES NORTH/NORTHWEST OF ROSWELL

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drig. unit line, if any)

660'/660'

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

4000'

16. NO. OF ACRES IN LEASE  
1311.819. PROPOSED DEPTH  
3550'17. NO. OF ACRES ASSIGNED  
TO THIS WELL  
16020. ROTARY OR CABLE TOOLS  
ROTARY

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

3951.3' GR

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

NOVEMBER 15, 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#	1600'	SURFACE
7 7/8"	4 1/2"	10.5#	3550'	ISOLATE WTR, O&G

Propose to drill 12 1/4" hole to approximately 1600' 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. P. M...*

TITLE

REGULATORY COORDINATOR

DATE

AUGUST 11, 1981

(This space for Federal or State office use)

PERMIT NO.

APPROVED

APPROVAL DATE

APPROVED BY

(Orig. Sgd.) GEORGE H. STEWART

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

AUG 19 1981

FOR  
JAMES A. GILLHAM  
DISTRICT SUPERVISOR

\*See Instructions On Reverse Side

APPLICATION FOR DRILLING

MESA PETROLEUM CO.  
BEND FEDERAL #3  
660' FNL & 710' FEL, SEC 31, T8S, R23E  
CHAVES COUNTY, NEW MEXICO

LEASE NO: NM 36642

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	667'
Yeso	852'
Tubb	2277'
Abo	2927'
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 1600' 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.

MESA PETROLEUM CO.  
BEND FEDERAL #3  
660' FNL & 710' FEL, SEC 31, T8S, R23E  
CHAVES COUNTY, NEW MEXICO

RECEIVED  
AUG 14 1981

LEASE NO: NM 36642

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 12 miles North/Northwest of Roswell, New Mexico.
- B. Directions: Travel North of Roswell on US Highway 285 until just before mile marker 117 and then turn West thru cattleguard. Travel Westerly on lease road for 8 miles (past the Ned State #1) then Northwest 1.5 miles then East/Northeast .7 mile to the location.

2. Planned Access Road:

- A. Length and width: The new access road will be 12' wide (20' ROW) and approximately 400' 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: One.
- D. Cut and Fill: In order for the location to be level, approximately 8 to 10' from Southeast corner will be moved to the Northeast 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

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 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: Sec 31, T8S, R23E.

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.

**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

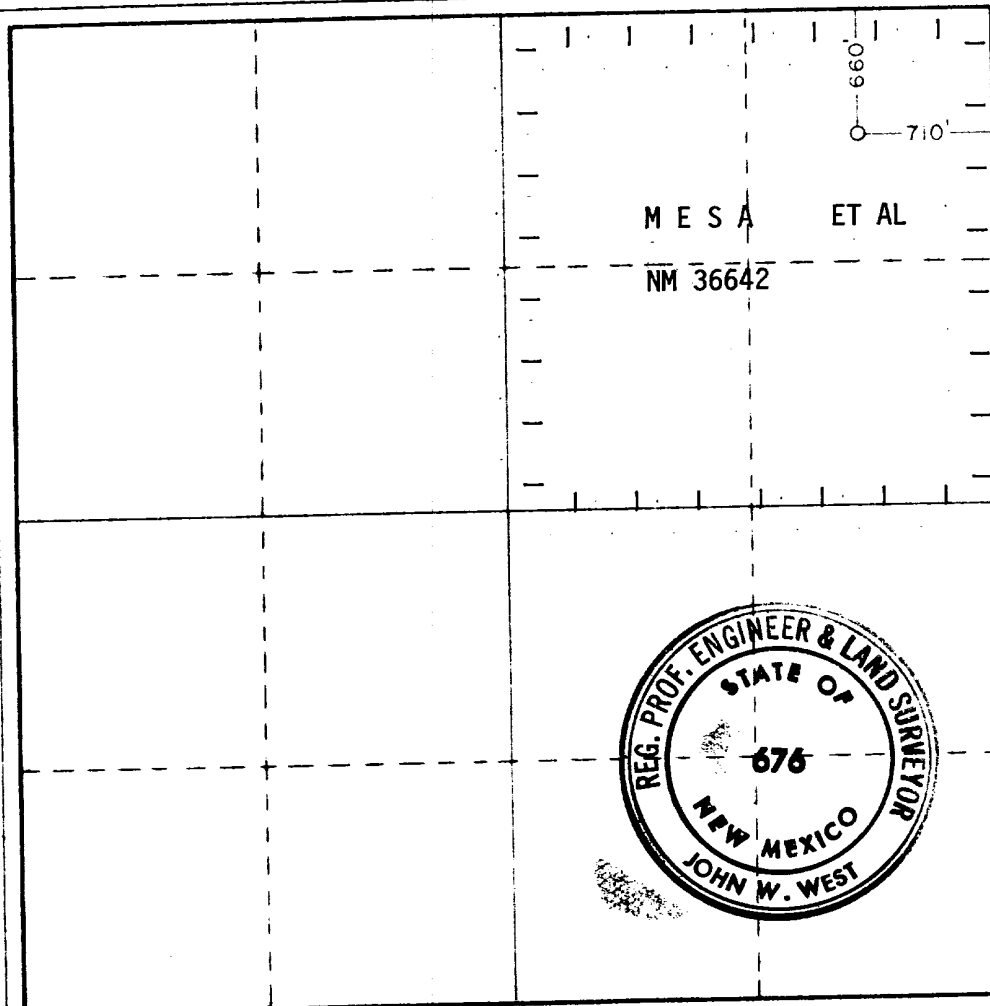
Operator <b>Mesa Petroleum Co.</b>			Lease <b>Bend Federal</b>		Well No. <b>3</b>
Tract Letter <b>A</b>	Section <b>31</b>	Township <b>8South</b>	Range <b>23East</b>	County <b>Chaves</b>	
Actual Footage Location of Well: <b>660</b> feet from the <b>North</b> line and <b>710</b> feet from the <b>East</b> line					
Ground Level Elev. <b>3951.3'</b>	Producing Formation <b>ABO</b>		Pool <b>UNDESIGNATED</b> <i>ABO</i>	Dedicated Acreage: <b>NE/4 160</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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  
**AUGUST 11, 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  
**June 24, 1981**

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



## 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 sloping to the Northeast.
- 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: Salt Creek is one mile to the North.
- E. Residences and Other Structures: None.

# Multi-Point Surface Use and Operation Plan

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- 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.

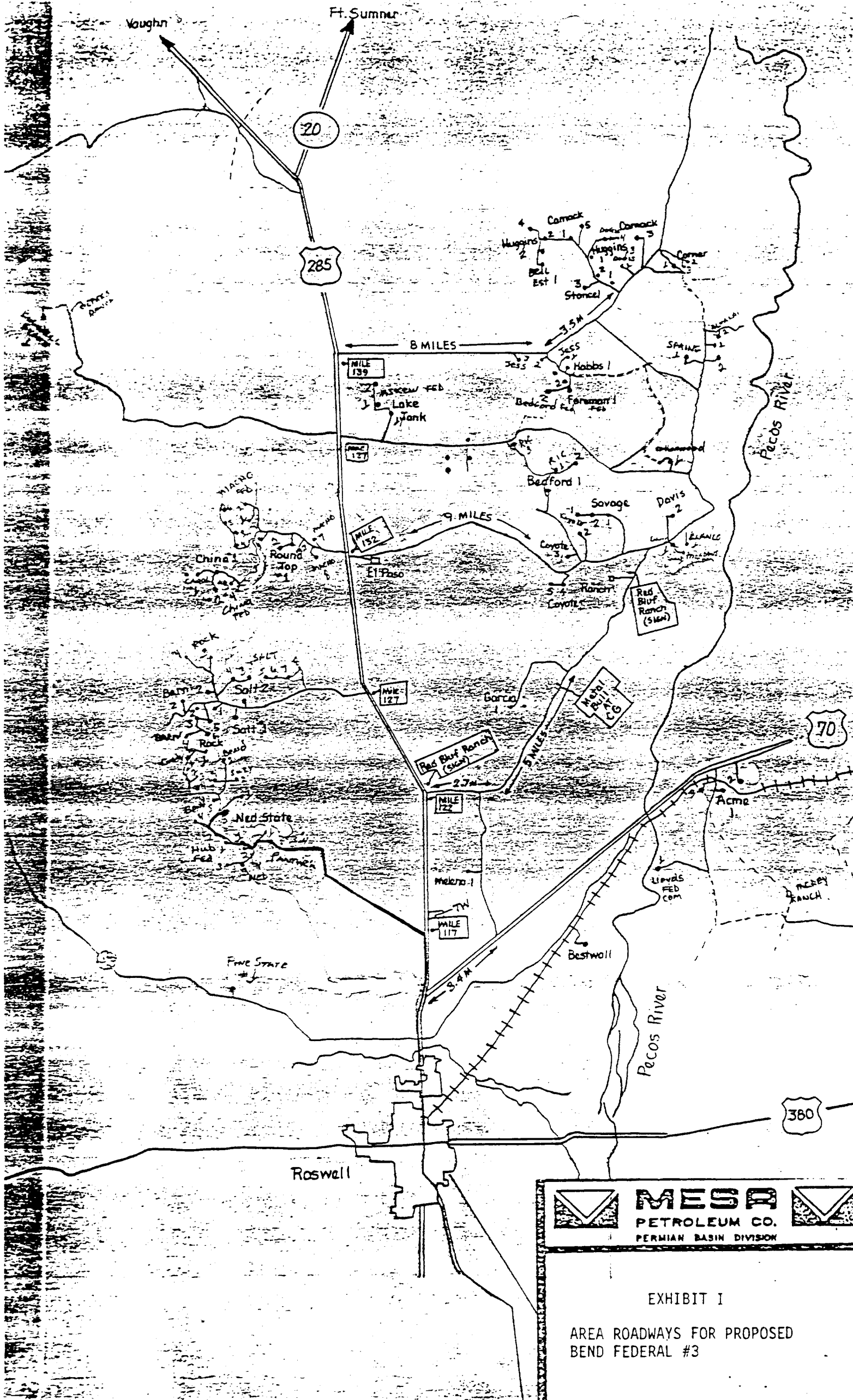
August 11, 1981

DATE

*Michael P. Houston*

MICHAEL P. HOUSTON  
OPERATIONS MANAGER





 **MESA**   
PETROLEUM CO.  
PERMIAN BASIN DIVISION

EXHIBIT I  
AREA ROADWAYS FOR PROPOSED  
BEND FEDERAL #3



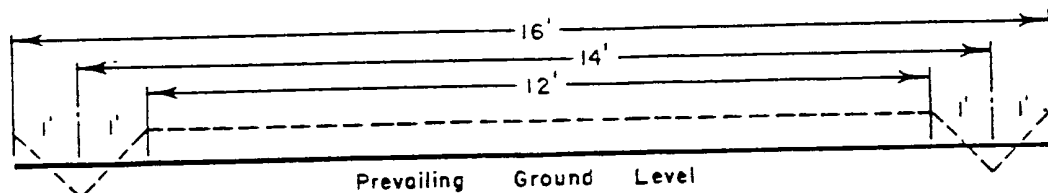
**MESA**  
PETROLEUM CO.  
PERMIAN BASIN DIVISION



EXHIBIT II

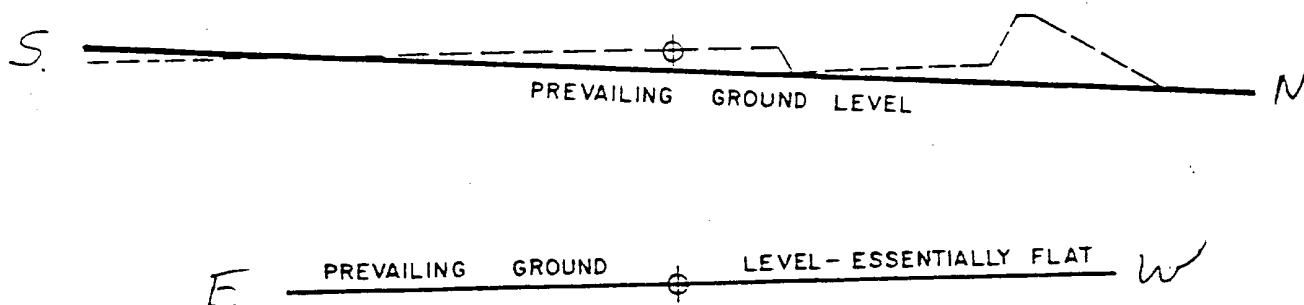
TOPOGRAPHIC FEATURES FOR PROPOSED  
BEND FEDERAL #3

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: RLM  
DATE: 3-5-80

DRAWN BY: W.P.  
SCALE: AS NOTED

	11	12	1	8	9
	.80 U.S. 320/640	.80 "Barn-Federal" 320/640 U.S.	.80 "Rock-Federal" 325.6/651.2 U.S.	.81 "Bent Fed" 320/640 U.S.	U.S.
Pat 5	Mesa Port V2 Public Lda. Expl. V2 9-1-89 36708 0077	Mesa Port V2 Public Lda. Expl. 9-1-89 36631 0079	Mesa Port V2 Public Lda. Expl. 9-1-89 36649 0083	M.J. Harvey, Jr. 8-1-85 23736	Yates Port, et al. 8-1-89 LG-6687 53 M
	14	13	18	17	16
		"Barn-Fed" 320/640 U.S.	326.165/652.33 "Rock-Federal" U.S.		West Oil Lecho-St. TO ALST
R.M. Corn	.80 U.S. 320/640	.80 U.S. 320/640	.80 U.S.	U.S.	State 8
Fred Pool Jr. 8-27-85	Mesa Port V2 Public Lda. Expl. V2 9-1-89 36708 0077	Mesa Port V2 Public Lda. Expl. 9-1-89 36631 0078	Mesa Port V2 Public Lda. Expl. 9-1-89 36642 0082	M.J. Harvey, Jr. 8-1-85 23736	Yates, et al. 8-1-89 LG-6687 2354
R.M. Corn	23	24	19	20	21
			"Bend" 327.09/654.88 U.S.		
	.80 U.S. 320/640	.80 U.S. 320/640	.80 U.S.	U.S.	U.S.
Numbers 1-84 198	M.C. Chambers 9-1-84 22089	MTS 1/2 Public Lda. Expl. 9-1-89 36631 0078	MTS 1/2 Public Lda. Expl. 9-1-89 LG-6687 30 M 0028	MTS 1/2 Public Lda. Expl. 9-1-89 LG-6687 30 M 0028	Yates Port, et al. 8-1-89 LG-6687 45 M
7	26	25	30	29	28
			213.2423/656.13 State	.80 State 208/640	H. Formanburg LG-2084 7-4-84
S.	U.S.	.80 U.S. 208/640	.80 State	.80 State 208/640	State
Numbers 1-84 198	M.C. Chambers 9-1-84 22089	Katherine Horvey 11-1-80 LG-8993 102.12	MTS 1/2 Public Lda. Expl. 9-1-89 36642 0082	Yates 8-1-89 LG-6687 30 M	Yates 8-1-89 LG-6687 30 M
14	35	36	31	32	33
		F.F. Davis 12-1-80 LG-9001 156.82	213.7245/657.62 U.S.	State	State
S.	U.S.	State	.80 U.S.	.80 State	.80 State
		J.W. Williams 8-1-87	MTS 1/2 Public Lda. Expl. V2 9-1-89 LG-6687 30 M 0031	(MTS 1/2) Public Lda. Expl. 9-1-89 LG-6687 30 M 0031	MTS 1/2 Public Lda. Expl. 9-1-89 LG-6687 30 M 0030
Loc. Expl. V2 1-85 36708 0198	ANR Prod. 2-12-79 LG-9430	2	6	7	4
154/ABO	State	U.S.	213.7002 U.S. 657.81	.80 "Bent Fed" 207.9415 U.S. 659.82	.80 State 207.952 U.S. 659.76
Numbers 1-87 239	MTS 1/2 Public Lda. Expl. 9-1-89 36631 0134	MTS 1/2 Public Lda. Expl. 9-1-89 36631 0134	MTS 1/2 Public Lda. Expl. V2 9-1-89 36642 0088	MTS 1/2 Public Lda. Expl. 9-1-89 LG-6687 30 M 0031	Yates Port, et al. 8-1-89 LG-6687 26 M
10	11	12	7	8	9
S.	.805 U.S. 208/640	.805 U.S. 208/640	.80 U.S. 213.8175 U.S. 657.9	.80 State 208/640	State
	MTS 1/2 Public Lda. Expl. 9-1-89 36631 0134	MTS 1/2 Public Lda. Expl. 9-1-89 36631 0134	MTS 1/2 Public Lda. Expl. V2 9-1-89 36642 0088	Yates Port, et al. 8-1-89 LG-6687 23 M	MTS 1/2 Public Lda. Expl. 9-1-89 LG-6687 25 M 0032
5	14	13	18	17	16
S.	.805 U.S. 208/640	.805 U.S. 208/640	.80 U.S. 214.2595 U.S. 659.26	State	.80 State 208/640 9
Numbers 1-87 239	MTS 1/2 Public Lda. Expl. 9-1-89 36631 0018	MTS 1/2 Public Lda. Expl. 9-1-89 36631 0018	MTS 1/2 Public Lda. Expl. V2 9-1-89 36642 0088	Yates Port, et al. 8-1-89 LG-6687 23 M	MTS 1/2 Public Lda. Expl. 9-1-89 LG-6687 25 M 0033
2	23	24	19	20	21
			107.653 U.S. 531.24	107.877 U.S. 531.76	
S.	.81 U.S. 208/640	.81 U.S. 208/640	.80 U.S.	.80 U.S.	
Loc. Expl. V2 1-85 36708 0198	MTS 1/2 Public Lda. Expl. 9-1-89 36631 0018	MTS 1/2 Public Lda. Expl. 9-1-89 36631 0018	MTS 1/2 Public Lda. Expl. V2 9-1-89 36642 0089	MTS 1/2 Public Lda. Expl. 9-1-89 LG-6687 30 M 0089	
	26	25	30		
S. 208/640	.81 U.S. 208/640	.81 U.S. 208/640	.80 U.S. 216.5335/663.18	.80 U.S.	
Loc. Expl. V2 1-85 36708 0198	MTS	MTS	MTS 1/2 Public Lda. Expl. 9-1-89	MTS 1/2 Public Lda. Expl. 9-1-89	



EXHIBIT IV  
ONE-MILE RADIUS LAND MAP FOR  
PROPOSED BEND FEDERAL #3

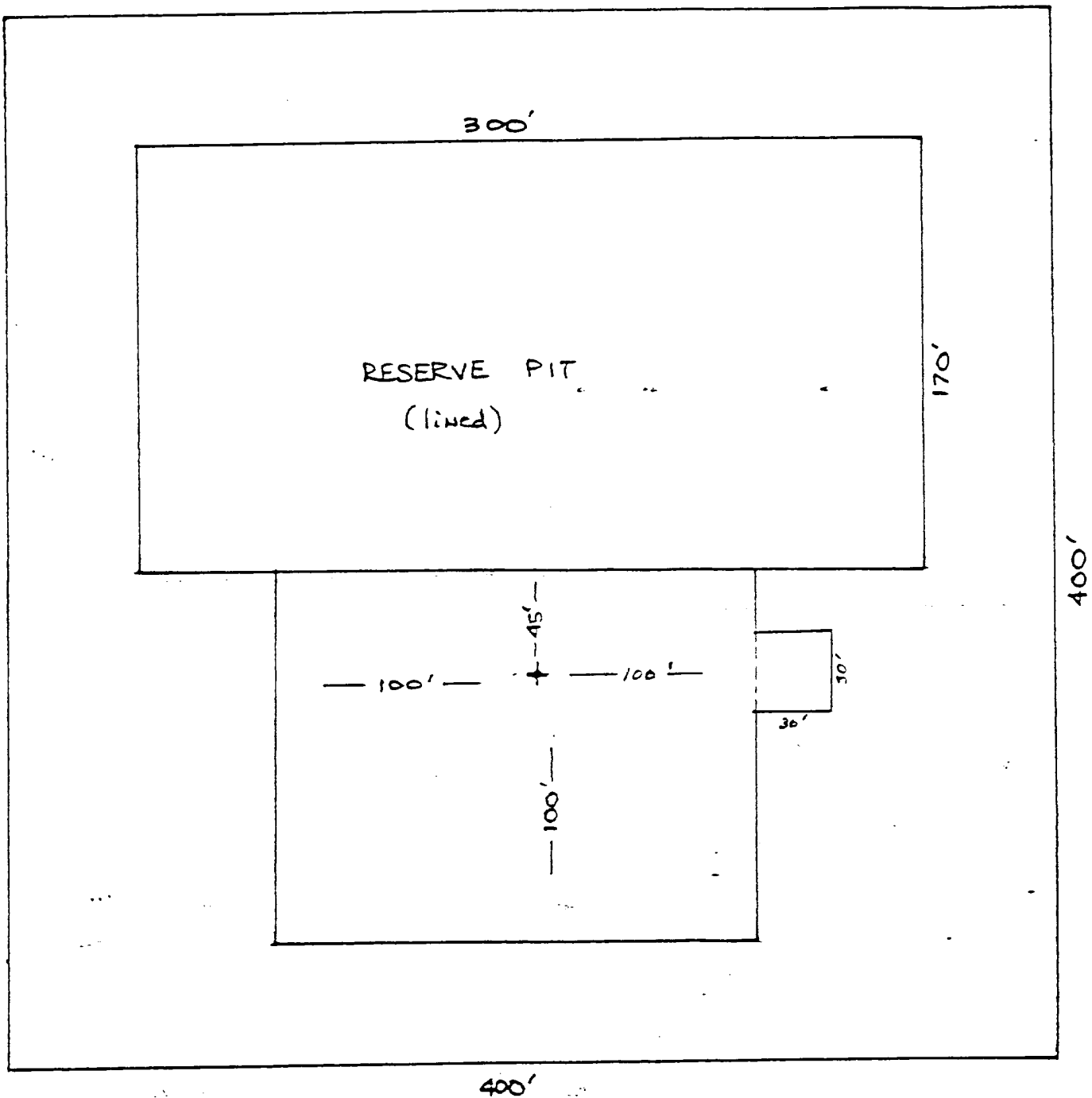
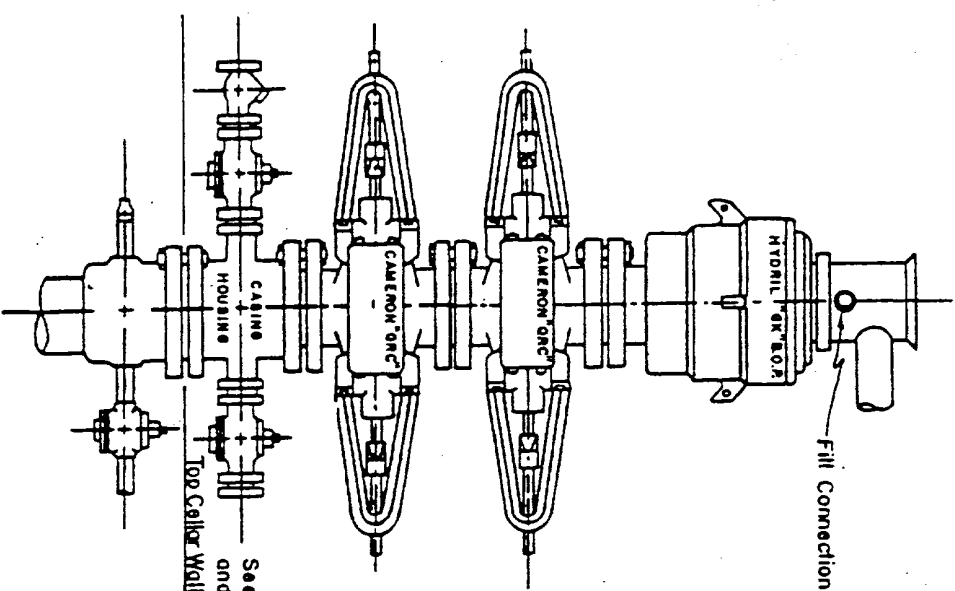


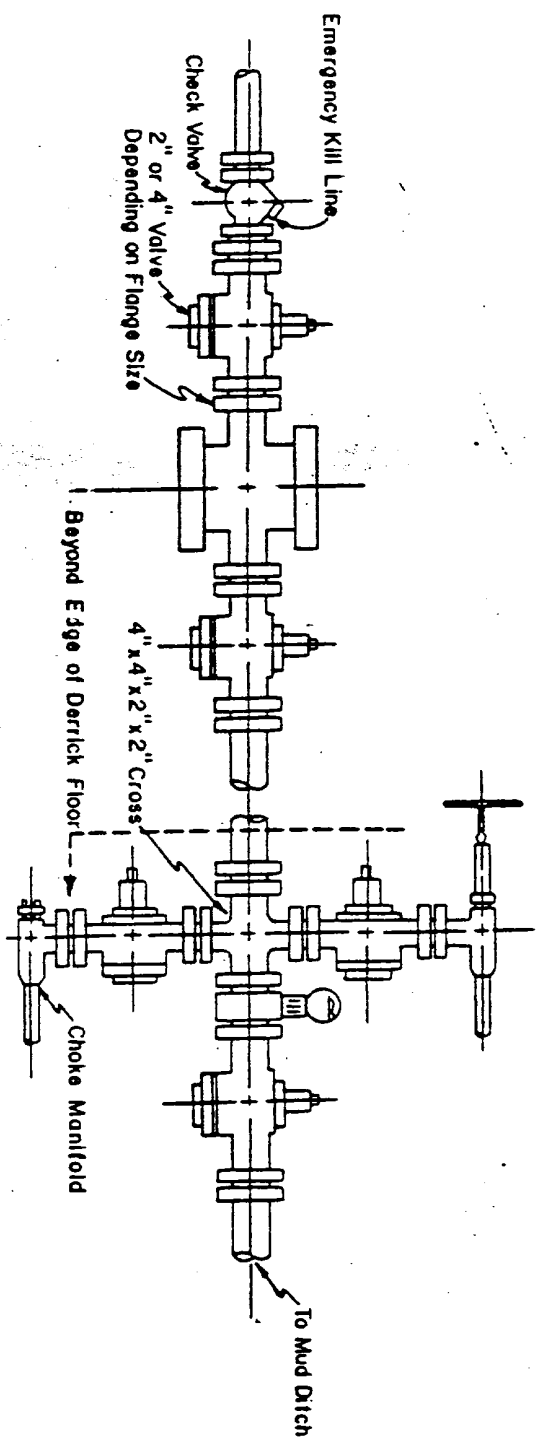
EXHIBIT V

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



3,000 PSI WORKING PRESSURE  
BLOW-OUT PREVENTER HOOK-UP

See Detail of 4" Flow Line  
and Choke Assembly



### 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.



E X H I B I T  
V I

DATE: \_\_\_\_\_  
PAGE: \_\_\_\_\_