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AUG 2 1982

Form 9-331 C  
(May 1963)

O. C. D.  
SUBMIT IN TRIPLICATE\* Form approved.  
ARTESIA, OFFICE Budget Bureau No. 42-R1425.  
(Other instructions on reverse side)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> 2. NAME OF OPERATOR MESA PETROLEUM CO. ✓ 3. ADDRESS OF OPERATOR 1000 VAUGHN BUILDING/MIDLAND, TEXAS 79701-4493 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) At surface 660' FSL & 660' FEL SE¼ SE¼ P At proposed prod. zone SAME 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 10 miles Northeast of Roswell, New Mexico 15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 660'/660' 16. NO. OF ACRES IN LEASE 800 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. N/A 19. PROPOSED DEPTH 4100' 20. ROTARY OR CABLE TOOLS ROTARY 21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3568' GR 22. APPROX. DATE WORK WILL START* AUGUST 25, 1982	5. LEASE DESIGNATION AND SERIAL NO. NM-33944 6. IF INDIAN, ALLOTTEE OR TRIBE NAME 7. UNIT AGREEMENT NAME 8. FARM OR LEASE NAME SHELLY FEDERAL 9. WELL NO. 2 10. FIELD AND POOL, OR WILDCAT UNDESIGNATED ABO 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SEC 23, T9S, R24E 12. COUNTY OR PARISH CHAVES 13. STATE NEW MEXICO
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23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14 3/4"	10 3/4"	40.5#	950'	700/300 SURFACE
9 1/2"	7 5/8"	26.4#	1600'	700/300 TIE BACK
6½ or 7 7/8"	4 1/2"	10.5#	4100'	300 COVER ABO

Propose to drill 14 3/4" hole with mud or air to approximately 950' and run 10 3/4" casing. Will cement to surface and test casing with cementing head to 600 psi. Will reduce hole to 9½" and drill on mud or air to approximately 1600' and run 7 5/8" casing if circulation has been lost and cement with sufficient amounts to tie-back to 10 3/4" casing. Will then reduce hole to 6½" or 6¼", test BOP's and casing and drill to total depth. If hole conditions are favorable, the 7 5/8" casing will be omitted and the hole will be reduced to 7 7/8" and drilled to total depth. Either 4½" or 5½" casing will be run as production casing depending upon hole size drilled to TD.

Operator's gas sales are dedicated.

XC: MMS (7), TLS, CEN RCDS, ACCTG, MEC, LAND, ROSWELL, REM, FILE, (PARTNERS

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. Nash TITLE REGULATORY COORDINATOR DATE 7-21-82

(This space for Federal or State office use)

PERMIT NO. APPROVED APPROVAL DATE JUL 30 1982  
(Orig. Sgd.) GEORGE H. STEWART  
APPROVED BY JUL 30 1982 TITLE JAMES A. CRIVAN DATE JUL 30 1982  
CONDITIONS OF APPROVAL, IF ANY:

JAMES A. CRIVAN  
DISTRICT SUPERVISOR

RECEIVED  
JUL 23 1982

OIL & GAS  
U.S. GEOLOGICAL SURVEY  
ROSWELL, NEW MEXICO

Postcard  
JUL 1  
8-5-82  
New Mexico  
Geological

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

Operator <b>Mesa Petroleum</b>		Lease <b>Shelly Federal</b>		Well No. <b>2</b>
Well Letter <b>P</b>	Section <b>23</b>	Township <b>9 South</b>	Range <b>24 East</b>	County <b>Chaves</b>
Well Postage Location of Well: <b>660</b> feet from the <b>South</b> line and <b>660</b> feet from the <b>East</b> line				
Ground Level Elev. <b>3568</b>	Producing Formation <b>ABO</b>	Pool <b>UNDESIGNATED - A/C</b>	Dedicated Acreage: <b>SE/4 160</b> Acres	

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

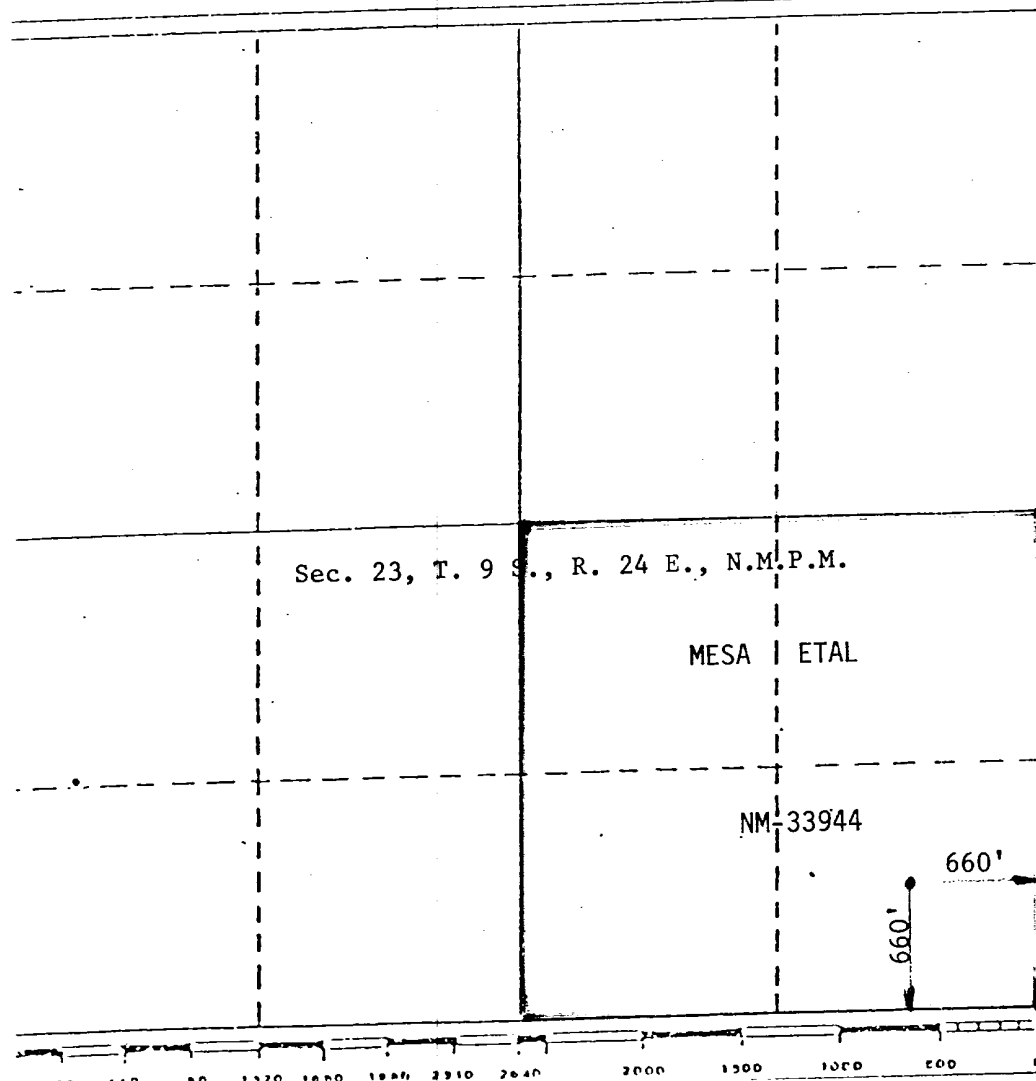
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 Division.



#### 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 21, 1982**

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 Signed  
**JULY 23, 1982**

Registered Professional Engineer and/or Land Surveyor  
**JOHN D. JAQUES**

Certificate No. **6290**

APPLICATION FOR PERMIT TO DRILL

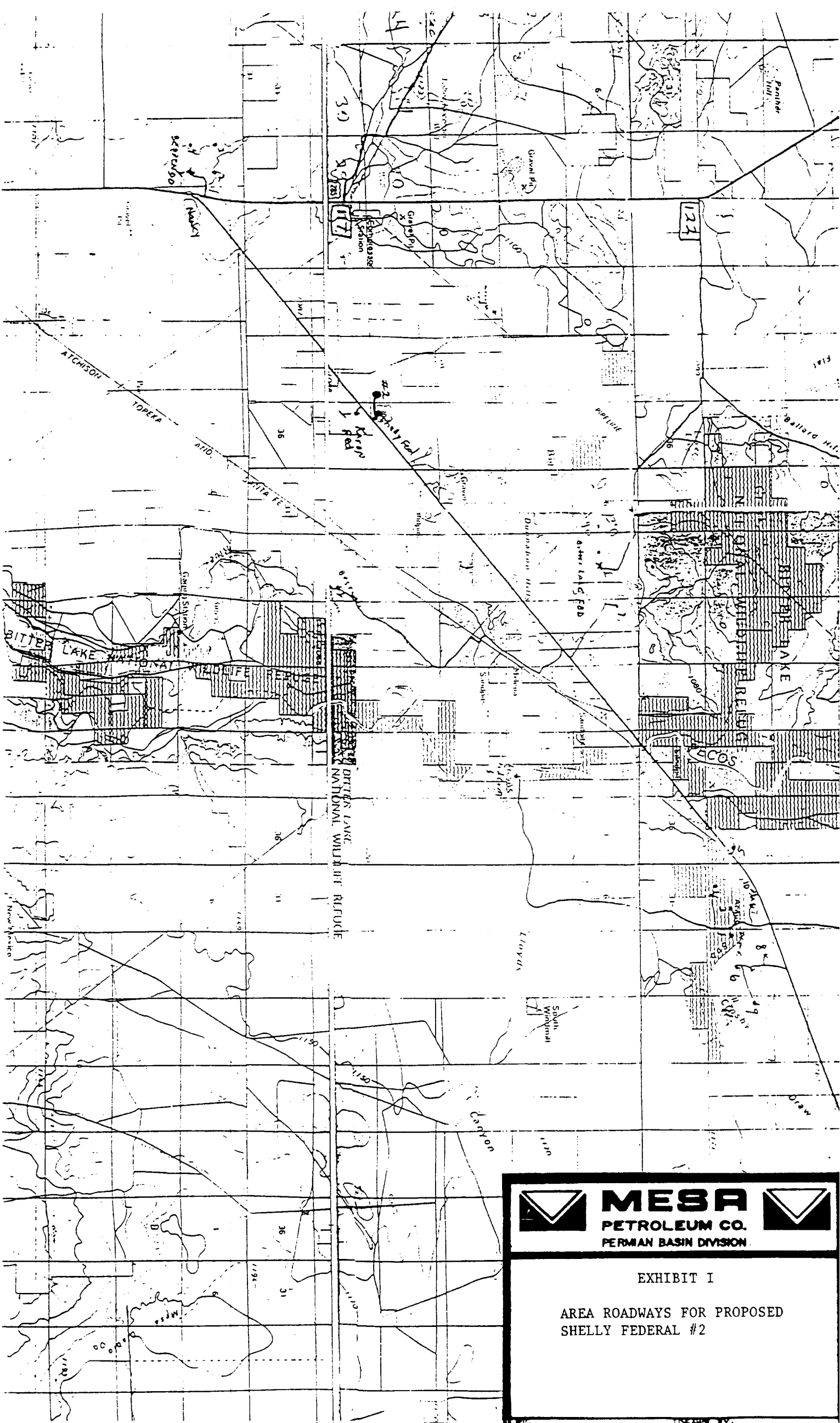
MESA PETROLEUM CO.  
SHELLY FEDERAL #2  
660' FSL & 660' FEL, SEC 23, T9S, R24E  
CHAVES COUNTY, NEW MEXICO

LEASE NO. NM-33944

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:

SEVEN RIVERS	Surface
SAN ANDRES	353'
GLORIETA	1313'
TUBB	2813'
ABO	3503'
3. Hydrocarbon bearing strata may occur in the Abo formation(s). No fresh water is expected to be encountered below 950'
4. The Casing and Blowout Preventer Program will be determined by hole conditions as encountered. See Exhibit VI. Anticipate drilling with mud, air or foam using ram type preventer and rotating head for well control. The 10 3/4" casing will be set at approximately 950' to protect any fresh water zones and cemented to the surface. The 7 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 test or coring program is planned. The logging program may consist of a GR-CNL from surface 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.





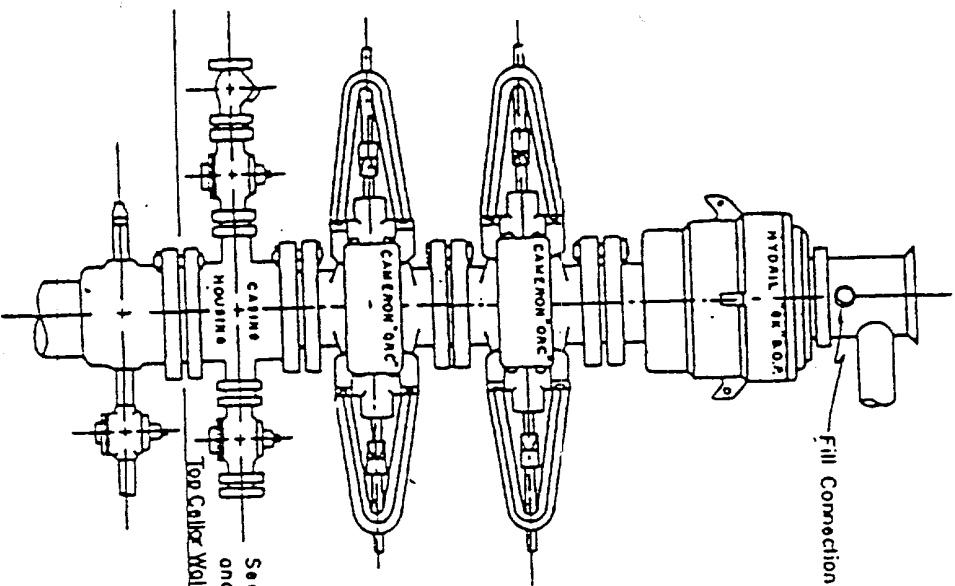
**MESA**  
PETROLEUM CO.  
PERMAN BASIN DIVISION

EXHIBIT I

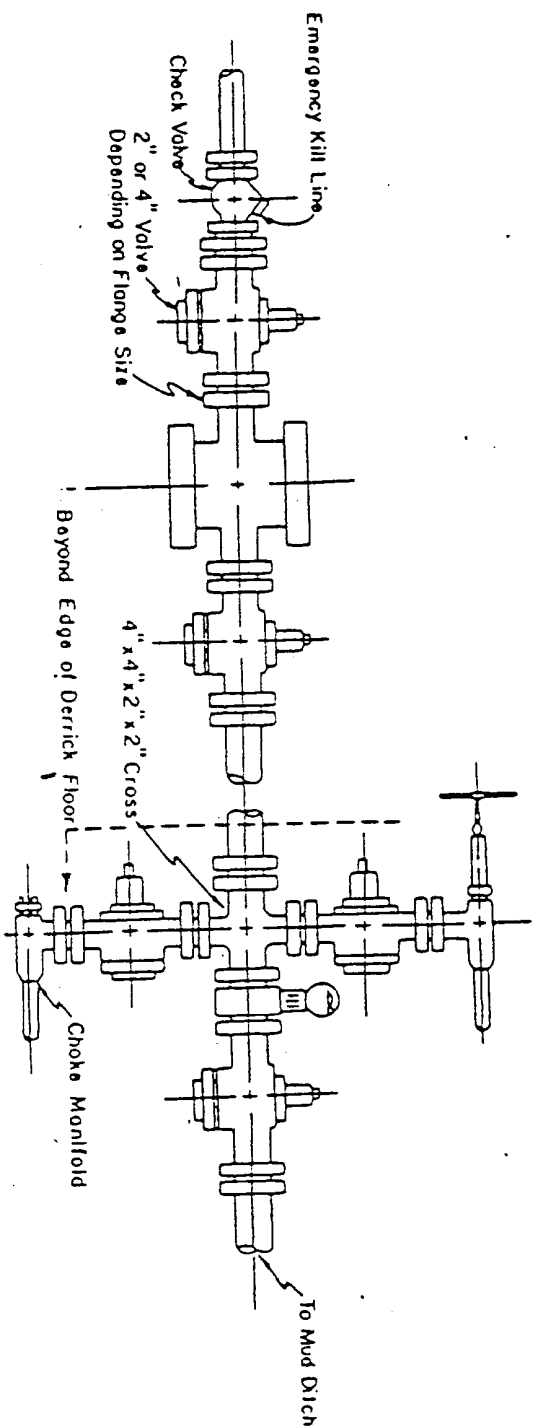
AREA ROADWAYS FOR PROPOSED  
SHELLY FEDERAL #2



# Blow-out Preventers hydril and choke manifold are oil 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.  
PENNIAN BASIN DIVISION



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