

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 regulations.)

At surface  
460' FNL & 1980' FWL  
At proposed prod. zone

Same as above

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

23 miles northeast Carlsbad, New Mexico

## 15. DISTANCE FROM PROPOSED\*

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

460'

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

N/A

## 16. NO. OF ACRES IN LEASE

306.34

## 19. PROPOSED DEPTH

2300'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3437 GR

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

July 15, 1979

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8-5/8"	24#	500'	200 sx (or sufficient to circ)
7-7/8"	4-1/2"	9.5#	2300'	500 sx

Propose to drill 11" hole (through 13-3/8" conductor pipe) to 500' using fresh water but without BOPs. After running 8-5/8" casing and circulating cement to the surface, will install 8-5/8" x 10" API 3000 psi casinghead. Will nipple up 10" API 3000 psi dcuble BOPs with pipe rams and blind rams. Drill 7-7/8" hole to approximately 2300' using brine water. Maximum bottom hole pressure should be approximately 1000 psi based on offset well. Will log well and run 4-1/2" casing to total depth. Cement with volume sufficient to cover all pay zones, and tie cement back into surface pipe.

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ARTESIA, NEW MEXICO

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

Steve Douglas

TITLE

Engineer

DATE

6-7-79

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

7-23-79

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

XC: JLF, MEC, JWH, JBH, FILE, W.I.OWNERS, NMOCD

MEXICO OIL CONSERVATION COMMISS.  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-112  
Supersedes O-128  
Effective 1-1-65

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

Mesa Petroleum Co.		Bass Federal		1
C	6	20 South	01 East	Eddy
460	North	1930	West	
3427.00	Yates	North Hackberry-Yates-7 Rivers	37.91	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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?

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**JUL 24 1979**

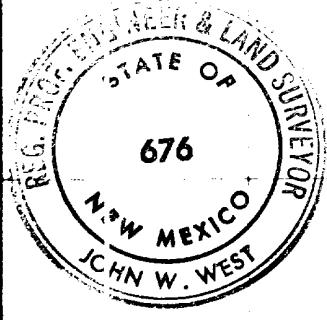
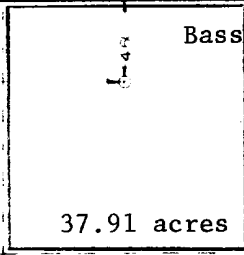
☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

**O. C. C.**

**ARTESIA, OFFICE**

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.

		<p><b>Bass Enterprises Production Company &amp; Perry R. Bass LC 068408</b></p>
	<p><b>37.91 acres</b></p>	

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ARTESIA, NEW MEXICO**

**CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*Steve Douglas*

Steve Douglas

Engineer

Mesa Petroleum Co

June 7, 1979

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.

June 7, 1979

Registered Professional Engineer  
John W. West

*John W. West*

Certificate No. John W. West

676

Ronald J. Eidson

3239

330 160 90 1320 1650 1980 2310 2640 2000 1500 1000 500



United States Department of the Interior **RECEIVED**

GEOLOGICAL SURVEY

P. O. Box 26124  
Albuquerque, New Mexico 87125

**JUL 24 1979**

**O. C. C.  
ARTESIA, OFFICE**

**JUL 23 1979**

Mesa Petroleum Company  
1000 Vaughn Building  
Midland, Texas 79701

MESA PETROLEUM COMPANY  
Bass Federal No. 1  
460 FNL 1980 FWL Sec. 6 T20S R31E  
Eddy County Lease No. LC-068408

Above Data Required on Well Sign

Gentlemen:

Your APPLICATION FOR PERMIT TO DRILL the above-described well in the Secretary's Oil-Potash Area to a depth of 2300 feet to test the Yates-Seven Rivers formation is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL LEASES, dated July 1, 1978.
2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the SURFACE USE PLAN and this approval including the GENERAL REQUIREMENTS.
3. Submit a Daily Report of Operations from spud date until the Well Completion Report (form 9-330) is filed. The progress report should be not less than 8" x 5" in size and each page should identify the well.
4. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Requirements. The color used should simulate Sandstone Brown (Federal Standard # 595A, color 20318 or 30318).
5. Cement behind the 8-5/8" and 4-1/2" casing must be circulated.
6. Notify the Survey in sufficient time to witness the cementing of the 4-1/2" casing.



7. Please have anyone contacting the Survey in regard to this well to identify the well with all of the information required above for the well sign.

Sincerely yours,

(ORIG. SGD.) GENE F. DANIEL

ACTING Area Oil and Gas Supervisor

Enclosure

cc:  
 Regional Manager, Denver  
 Mining Branch (2)  
 BLM, Roswell (w/cy notice)  
NMOCD, Artesia (2) (w/2 cys notice)  
 Artesia  
 Roswell (w/cy notice)  
 Area (potash)  
 Area (Chrono.)

## APPLICATION FOR DRILLING

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MESA PETROLEUM CO  
BASS FEDERAL #1  
SEC 6, T20S, R31E  
EDDY COUNTY, NEW MEXICO

JUN 11 1979

U.S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO

In conjunction with permitting subject well for drilling in Section 6, Township 20 South, Range 31 East of Eddy County, Mesa Petroleum Co submits the following:

- 1 The geologic surface formation is Permian Ochoan, Dewey Lake formation.
- 2 Rotary tools will be utilized to drill this well to a total depth of approximately 2300'.

3. The estimated tops of several geologic markers are: GR 3437'  
EST RKB 3447'

FORMATION	DEPTH	SUBSEA
Rustler	697'	+2750
Tansil	1807'	+1640
Yates	1997'	+1470
TD	2300'	+1147

4. The estimated depths at which anticipated water, oil, or gas formations are expected to be encountered are:

Water - approximately 400'  
Oil - approximately 2100'

5. Casing and Blowout Preventer Program

Surface: Approximately 500' of 8-5/8", 24#, K-55, ST&C casing cemented with 200 sacks Class "C" + 2% CaCl (or sufficient volume to circulate to the surface). Will install 8-5/8" x 10 API 3000 psi casinghead and nipple up 10" API 3000 psi WP BOPs to drill the 7-7/8" production hole.

Production: Approximately 2300' of 4-1/2", 9.5#, K-55, ST&C casing will be cemented with sufficient volume (est 500 sx) to cover all pay and tie cement back into surface pipe. Cement will be 240 sx of light weight followed by 260 sx Class "C" + 2% CaCl.

Choke, kill, and fill lines are as indicated on Exhibit I. BOPs will be tested with rig pumps prior to drilling below the 8-5/8" casing shoe. BOPs will be worked at least once each day, with blind rams worked only on trips.

5. Circulating Medium and Control Equipment

0 - 500' Will drill 11" hole with fresh water spud mud, while circulating through a small portion of the plastic lined reserve pit. Mud weight of 8.6-9.2 PPG with viscosity of 15-90 will be utilized to keep the hole clean. Some loss circulation material will most likely be required, also.

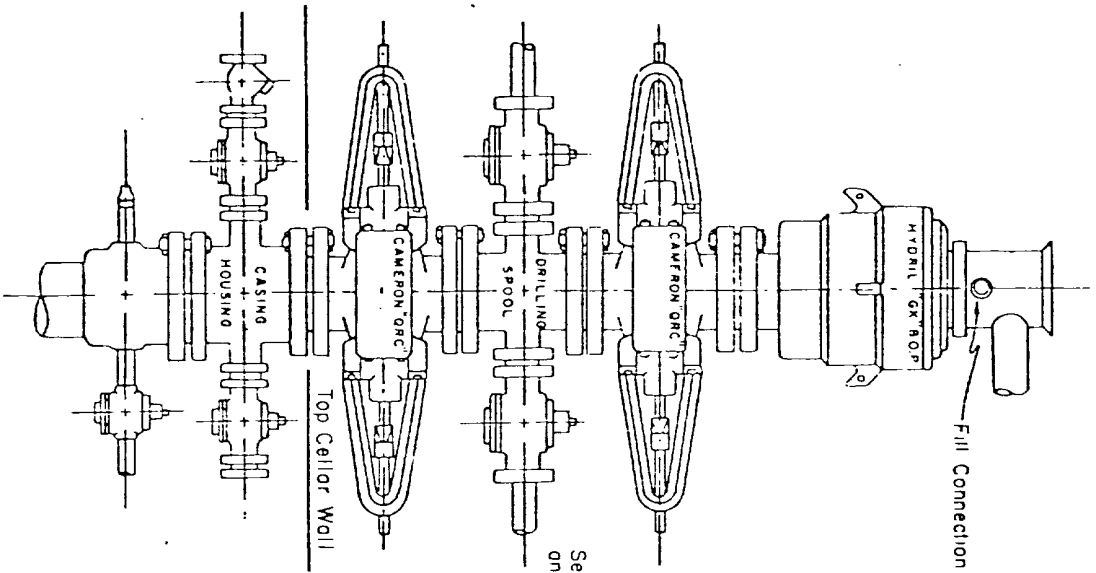
500 - 2300' Will drill 7-7/8" hole with brackish and brine water. Will periodically "sweep" hole with higher viscosity pills. Will circulate through a controlled portion of the lined reserve pit while using mud weight of 9.4-10.1 PPG with 28 - 34 viscosity.

A full opening safety valve, to fit the drill string in use, will be kept on the rig floor at all times. Kelly cock, safety valve, choke, and kill lines will be tested at the same time that BOP tests are run.

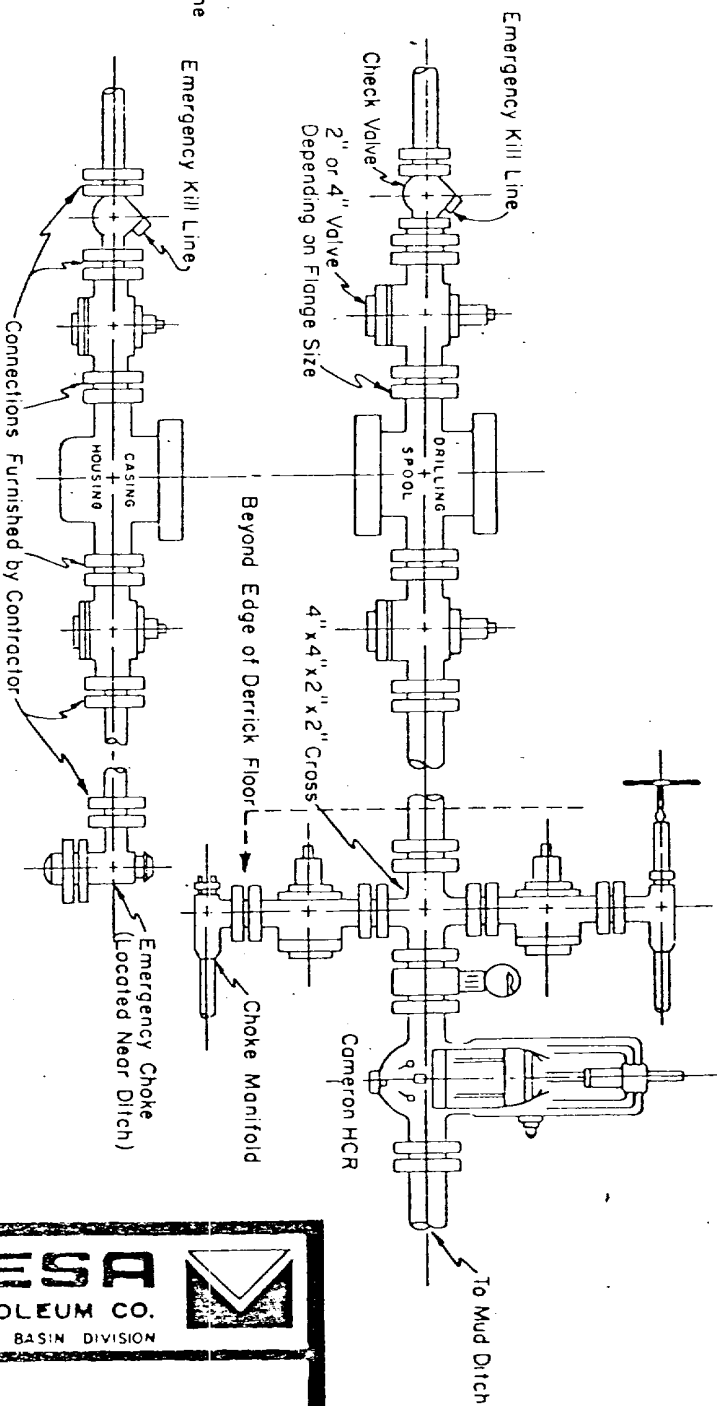
7. No scheduled Cores or Drill Stem Tests

The logging program will consist of a gamma ray log from total depth to surface. Neutron-density-caliper and dual laterolog/Rxo logs will be run from approximately 500' to total depth.

8. Maximum anticipated bottom hole pressure is 1000 psi at approximately 2300', based upon offset well data. Mud weight required to balance this formation pressure at this depth is only 8.5 PPG.
9. Anticipated commencement date is July 15, 1979, with completion of drilling operations on July 22, 1979. Completion operations (perforation and stimulation) will immediately follow the drilling operations.



See Detail of 4" Flow Line and Choke Assembly



3000 PSI WORKING PRESSURE  
KILL, CHOKE, AND FILL CONNECTIONS

DETAIL OF 4" FLOW LINE CHOKE ASSEMBLY

Minimum assembly for 3000 PSI working pressure will consist of three preventers.

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

**MESA**

PETROLEUM CO.

PERMIAN BASIN DIVISION

EXHIBIT I

BLOWOUT PREVENTER  
SCHEMATIC