

MIN. OF. CONS. COMMISSION
P.O. BOX 1930
MIDLAND, NEW MEXICO 79702
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NM-03085
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Marathon Oil Company		7. UNIT AGREEMENT NAME
3. ADDRESS AND TELEPHONE NO. P.O. Box 552, Midland, TX 79702 915/682-1626		8. FARM OR LEASE NAME, WELL NO. LEA UNIT 17
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 900'FSL & 1756'FEL At proposed prod. zone 900'FSL & 1756'FEL		9. API WELL NO.
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 19 MI. NW OF EUNICE, NM		10. FIELD AND POOL, OR WILDCAT SEE BELOW <i>Lea Devonian</i>
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 3540'		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SEC. 13, T20S, R34E
16. NO. OF ACRES IN LEASE 2560	17. NO. OF ACRES ASSIGNED TO THIS WELL 160	12. COUNTY OR PARISH LEA
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. ** 1103'	19. PROPOSED DEPTH 14,500'	13. STATE NM
20. ROTARY OR CABLE TOOLS ROTARY		21. APPROX. DATE WORK WILL START* ASAP
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3660'GL Capitan Controlled Water Basin		

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20"	CONDUCTOR	80'	REDIMIX TO SURFACE
17-1/2"	13-3/8"	48#, 55.5#	1700'	1600 SX - CIRCULATE
12-1/4"	9-5/8"	40#, 43.5#	5580'	1700 SX - CIRCULATE
7-7/8"	5-1/2"	17#, 20#, 23#	14,500'	1800 SX - TOC @ +/- 5000'

WELL IS A PROPOSED LEA DELAWARE, NORTHEAST FIELD, BONE SPRING/PENN/DEVONIAN POOL WELL.

** DISTANCE TO #3

OPER. OGRID NO. 14021
PROPERTY NO. 6422
POOL CODE 37540
EFF. DATE 1-9-95
API NO. 30-025-32794

Approval Subject to
General Requirements and
Special Stipulations
Attached

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 W.J. [Signature] FOR I.B.A. TITLE DRILLING SUPT. DATE 11-22-94
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY _____ TITLE **AREA MANAGER** DATE 12/19/94

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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OLD HOBBS
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DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-32794	Pool Code 37590	Pool Name Lea Northeast (Devonian)
Property Code 6422	Property Name LEA UNIT	Well Number 17
OGRID No. 14021	Operator Name MARATHON OIL CO.	Elevation 3660'

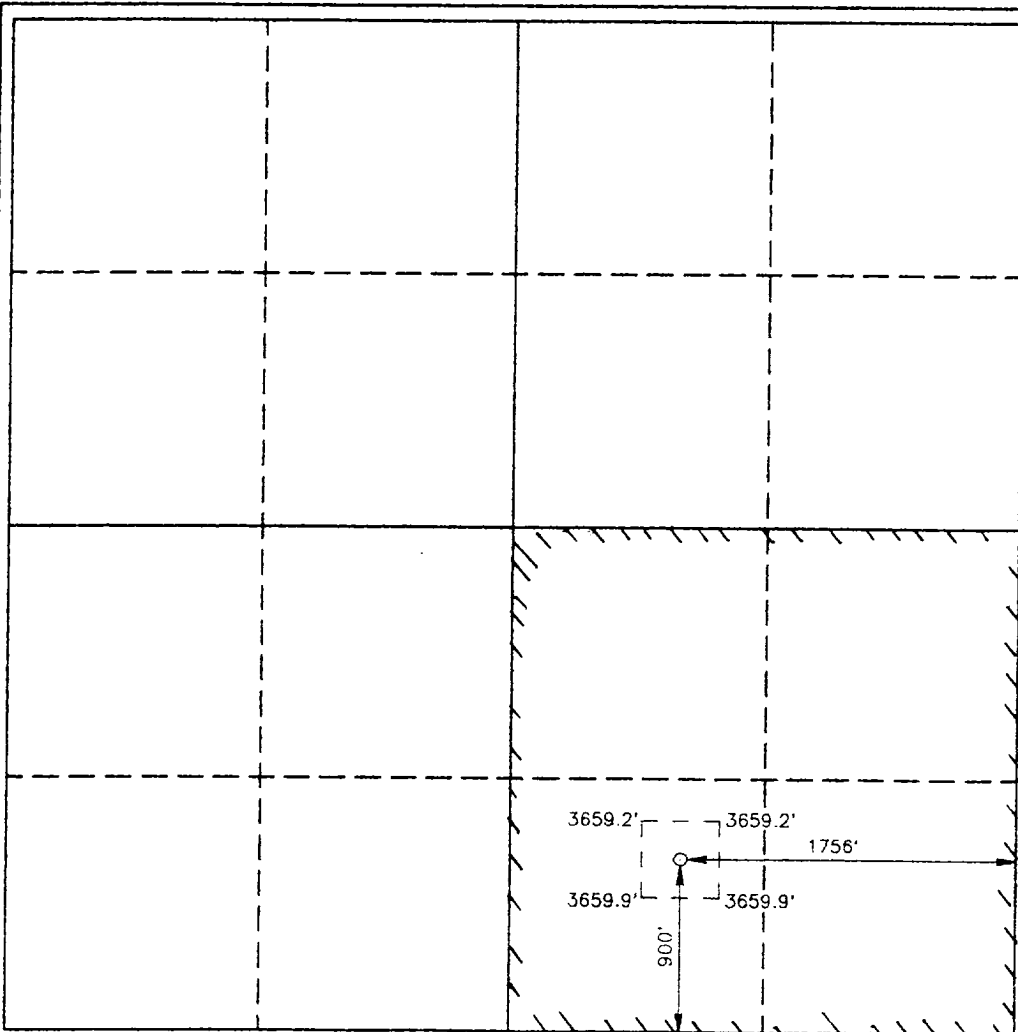
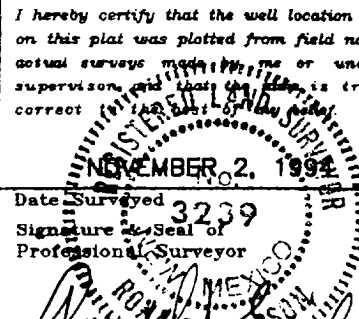
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	13	20S	34E		900	SOUTH	1756	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 160 - SE/4	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <u>W.J. Duman For T.B.A.</u> Signature <u>T. B. Arnold</u> Printed Name <u>Drilling Supt.</u> Title <u>11-22-94</u> Date
	SURVEYOR CERTIFICATION 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.  Date Surveyed <u>NOVEMBER 2, 1994</u> Signature & Seal of Professional Surveyor <u>W.O. Num. 94-11-1908</u>
	Certificate No. <u>JOHN W. WEST, 676</u> <u>RONALD J. EIDSON, 3239</u>

MARATHON OIL COMPANY

Lea Unit No. 17 ADDITIONAL INFORMATION Comply with Order 1

In conjunction with Form 9-331C, Application to Drill subject well, Marathon Oil Company submits the following items of information in accordance with BLM requirements:

1. Geological Name of Surface Formation

Quaternary Alluvium

2. Estimated tops of geological markers and depths of water, oil or gas bearing formations:

<u>FORMATIONS</u>	<u>TOP</u>	<u>LITHOLOGY</u>	<u>COMMENTS</u>
Dewey Lake	Surface	Sand-Shale	
Rustler	1745'	Anhy, dol, salt, sh.	
Yates	3525'	Anhy, dol, SD	
Capitan Reef	3900'	LS	SWD Zone
Queen	4750'	LS, SD	Oil, Wtr
San Andres	4985'	LS, dol	
Delaware	5633'	SD, dol, LS	Oil, Wtr
Bone Spring	8285'	LS, SD, dol	Oil, Gas, Wtr
1st Sand	9490'	SD, dol	2nd objective Oil, Gas, Wtr
2nd Carbonate	9788'	LS, SD, dol	Oil, Gas, Wtr
2nd Sand	10,145'	SD, SH, dol	Oil, Gas, Wtr
3rd Carbonate	10,595'	LS	Oil, Gas, Wtr
3rd Sand	10,865'	SD, Sh	Oil, Gas, Wtr
Wolfcamp	11,307'	LS, Sh	Oil, Gas
Strawn	12,040'	LS	Oil, Gas
Bend	12,340'	Sh	Oil, Gas
Atoka	12,455'	LS	Gas
Morrow	12,705'	SD, Sh	Gas
Mississippi	13,486'	LS	Gas
Woodford	14,076'	Sh	Gas
Devonian	14,254'	LS, dol	Gas

3. Casing and Cement Program

20" Surface to 80':

Cement to surface w/ redi-mix.

13-3/8" Intermediate to 1700':

Circ to surface w/ 1000 sx
Class "C" w/ 4% gel, 2%
CaCl₂, tail in w/ 600 sx
Class "C" w/ 2% CaCl₂. Set
ECP @ ± 1500' w/ FO
cement.

Additional Information

Page 7

9-5/8" Intermediate to 5580':

Set DV/ECP tool @ 3500'.
1st stage, 465 sx Class
"C", 10#/sk salt, tail in
w/ 145 sx Class "C" neat.
2nd stage lead - 850 sx
Class "C" w/ 4% gel, 10#/sk
salt, tail in w/ 240 sx
Class "C" w/ 2% CaCl₂.
Propose to circulate cmt.

5-1/2" Production to 14,500':

Set DV/ECP tool @ 9000'.
1st stage 1050 sx, Class
"H" w/ 3% KCl; 2nd stage
lead - 520 sx Class "H" w/
5#/sk salt. Tail in w/ 230
sx Class "H". Propose to
lift cmt to 4500'.

Surface Hole: 1300', 48#; H-40, STC
400', 55.5#, K-55, STC

Intermediate Hole: 5100', 40#, L-80, STC
480', 43.5#, L-80, STC

Production Hole: 2000', 17#, L-80, LTC
11,000', 20#, L-80, LTC
1500', 23#, L-80, LTC

4. Pressure Control Equipment (Exhibit E)

<u>Casing</u>	<u>Description</u>	<u>Test Pressure</u>
20"	21-1/4" 2M Annular 6" HCR w/ 6" diverter line	Function Test Pump thru lines
13-3/8"	13-5/8" 3M Annular 13-5/8" 3M dual ram & mud cross Casing tested to 1200 psi	200/1500 200/3000
9-5/8"	11" 5M Annular 11" 5M dual ram & mud cross Casing tested to 2700 psi	200/3000 500/5000 200/3000 500/5000

Casing rams will be installed and seals tested before running 9-5/8" & 5-1/2".

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5. Proposed Mud Program

0-1800'	FW spud mud/gel/lime, mud wt. 8.5, viscosity 45, FL - N/C
1800-5400'	Saturated brine, brine gel, mud wt. 10.0, viscosity 28, FL - N/C
5400-8300'	FW/starch/gel mud wt. 8.5, viscosity 32, FL - 10cc
8300-10,500'	FW gel/lime, mud wt. 8.6, viscosity 30, FL - N/C
10,500-14,500'	Cut brine polymer, mud wt. 9.6, viscosity 36, FL - 10cc

7. Auxiliary Equipment

A safety valve and subs to fit all strings will be kept on the floor at all times. An upper kelly cock valve will be utilized with the handle available on the rig floor.

Surface Hole: Stroke Counter/PVT

Intermediate Hole: Stroke Counter/PVT, Gas Separator, H₂S Monitor

8. Testing, Logging, and Coring Programs

A. Coring Program:

None anticipated.

B. Testing Program:

(2) possible drillstem tests in the Delaware and Bone Spring.

C. Logging Program:

Production Hole (14,500'-8300'): GR/LDT/CNL, DLL/MSFL (sidewall cores optional)

Production Hole (14,500'-8300'): GR/LDT/CNL, DLL/MSFL (RFT, FMI optional)

D. Mud Logging Services:

Two-man unit w/ full service to begin @ 3000'.

9. Abnormal Pressures, Temperatures or Potential Hazards

Possible H₂S in Bone Spring. Hydrogen Sulfide safety and monitoring equipment shall be rigged up at the 9-5/8" casing point. Possible severe lost circulation in the intermediate hole.

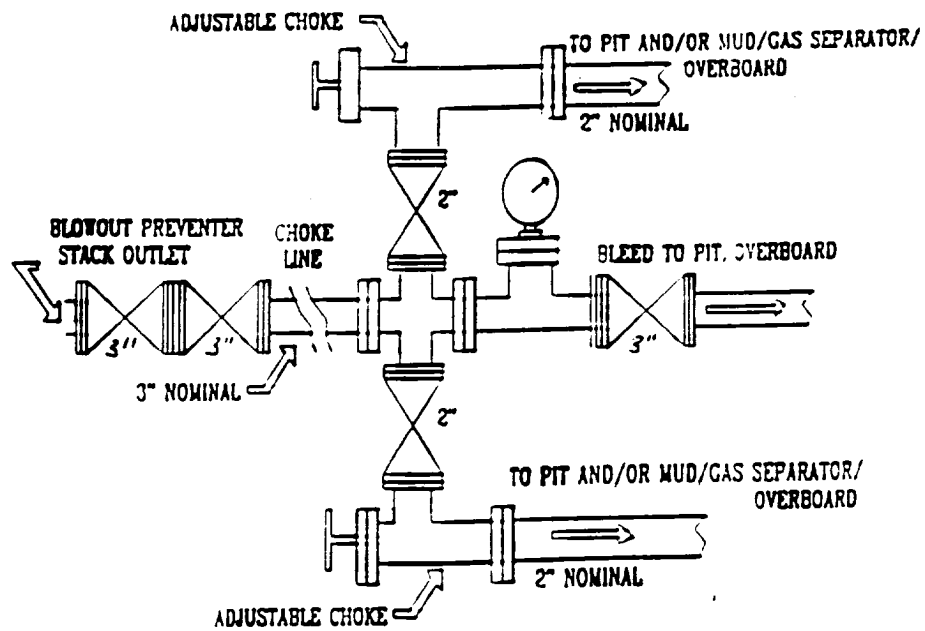
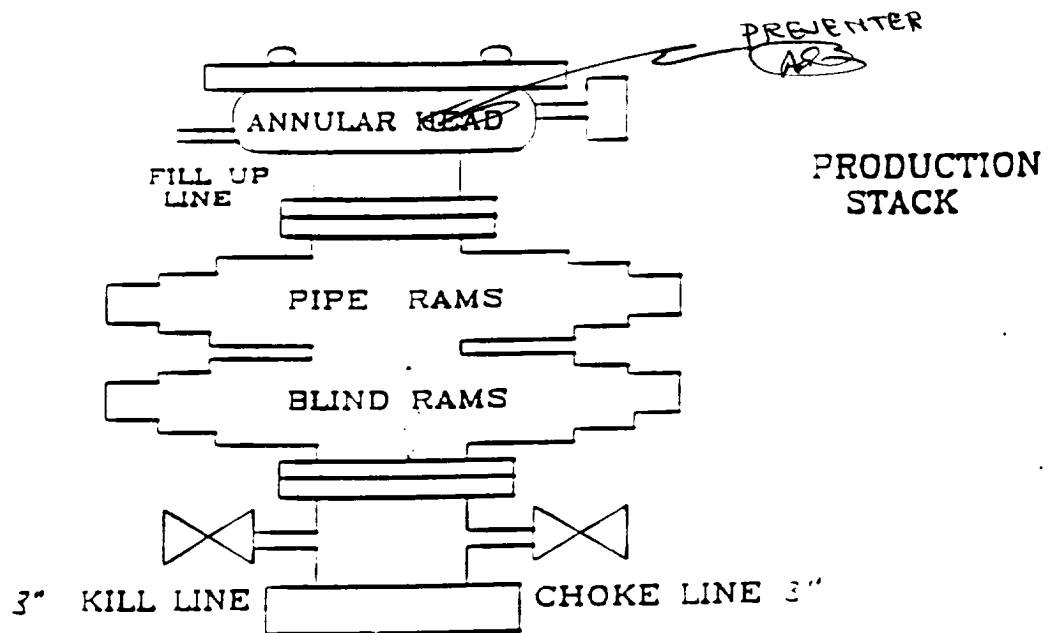
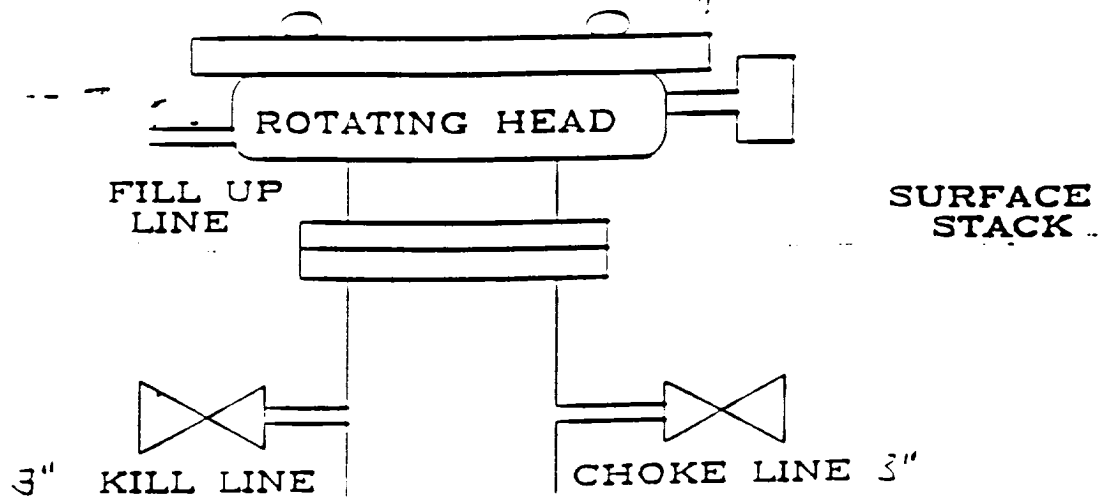
10. Anticipated Starting Date

As soon as possible

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L4/50/2
50/4/5

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