

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL ☒ DEEPEN ☐

b. TYPE OF WELL
OIL WELL ☐ GAS WELL ☒ OTHER ☐

2. NAME OF OPERATOR
Marathon Oil Company (915) 687-8357 14021

3. ADDRESS AND TELEPHONE NO.
P. O. Box 552, Midland, Tx. 79702-0552

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface 1650' FSL & 1650' FEL
At proposed prod. zone Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
13 air miles SSW of Bloomfield, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any) 990'

16. NO. OF ACRES IN LEASE 2401.76

17. NO. OF ACRES ASSIGNED TO THIS WELL 320 E2

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 282'

19. PROPOSED DEPTH 6,860'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6,315' ungraded ground

22. APPROX. DATE WORK WILL START*
Mar. 1, 2001

5. LEASE DESIGNATION AND SERIAL NO.
NMSF-078872A

6. IF APPLICABLE, COUNTY, TOWNSHIP, AND RANGE
N/A

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME, WELL NO.
Bolack 28 4 E 38010

9. API WELL NO.
30 045 398

10. FIELD AND POOL, OR WILDCAT
Basin Dakota

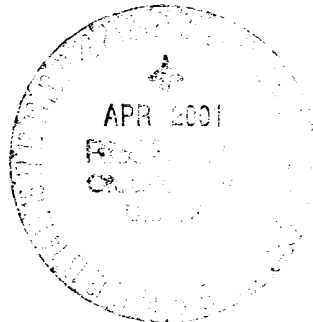
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
28-27n-11w NMPM

12. COUNTY OR PARISH 13. STATE
San Juan NM

PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8" (J-55)	24#	325'	≈270 cu ft & to surface
7-7/8"	4-1/2" (K-55)	11.6#	6,860'	≈2394 cu ft & to surface

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

DEVELOPMENT OPERATIONS AUTHORITY IS ARE
SUBJECT TO 43 CFR 3165.3 AND 3165.4
AND 3165.5 OF THE BUREAU OF LAND MANAGEMENT



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 Brian Farrell TITLE Consultant (505) 466-8120 DATE 10-15-00

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE 4/19/01

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 /s/ Joel Farrell TITLE _____ DATE _____

*See Instructions On Reverse Side

MMOCD

Form C-102
Revised February 21, 1994
Instructions on back
o Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-045-30398		2 Pool Code 71599		3 Pool Name BASIN DAKOTA	
4 Property Code 28010		5 Property Name BOLACK			6 Well Number 4P
7 OGRID No. 14021		8 Operator Name MARATHON OIL COMPANY			9 Elevation 6315

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	28	27 N	11 W		1650	South	1650	East	San Juan

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1dn	Feet from the	North/South line	Feet from the	East/West line	County
¹¹ Dedicated Acres 320 E6	¹³ Joint or Infill	¹⁴ Consolidation Code		¹⁵ 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

16		17	<h3 style="margin: 0;">OPERATOR CERTIFICATION</h3> <p style="margin: 0; font-size: small;">I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <div style="margin-top: 20px;"> <p style="margin: 0;">Signature</p> </div> <div style="margin-top: 10px;"> <p style="margin: 0; text-align: center; font-weight: bold; font-size: large;">BRIAN WOOD</p> <p style="margin: 0; text-align: center;">Printed Name</p> </div> <div style="margin-top: 10px;"> <p style="margin: 0; text-align: center; font-weight: bold; font-size: large;">CONSULTANT</p> <p style="margin: 0; text-align: center;">Title</p> </div> <div style="margin-top: 10px;"> <p style="margin: 0; text-align: center; font-weight: bold; font-size: large;">OCT. 15, 2000</p> <p style="margin: 0; text-align: center;">Date</p> </div>
		<h3 style="margin: 0;">18 SURVEYOR CERTIFICATION</h3> <p style="margin: 0; font-size: small;">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 belief.</p> <div style="margin-top: 20px;"> <p style="margin: 0;">Signature of Professional Surveyor</p> </div> <div style="margin-top: 10px;"> <p style="margin: 0; text-align: center; font-weight: bold; font-size: large;">15 Sep 2000</p> <p style="margin: 0; text-align: center;">Date of Survey</p> </div> <div style="margin-top: 10px;"> <p style="margin: 0; text-align: center; font-weight: bold; font-size: large;">William E. Mahnk II</p> <p style="margin: 0; text-align: center;">Certificate Number</p> </div>	

1650'

1650'

80.03cm

1650'

80.00cm

S89°55'W

N02°W

23

SEC.

80.00cm

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) An 8-5/8" x 11" 2,000 pound double ram BOP system with a choke manifold and mud cross will be tested to 200 psi and then to 2000 psi. Upper and lower Kelly cocks with valve handle and subs to fit all drill string connections which are in use will be available on the rig floor.

Tests will be run when:

- 1) installed
- 2) anytime a pressure seal is broken (test only affected equipment)
- 3) at least every 30 days
- 4) blind & pipe rams will be activated each trip, but no more than daily

BOP systems will be consistent with API RP 53. Blowout preventers will be installed and tested before drilling surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated daily to ensure good mechanical working order and this inspection recorded on the daily drilling report. Preventers and casing will be pressure tested before drilling casing cement plugs. Maximum expected bottom hole pressure is \approx 2,800 psi. BOP and mud system will control pressure.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O.D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>Connections</u>	<u>GL Setting Depth</u>
12-1/4"	8-5/8"	24	J-55	New	8rd, ST&C	325'
7-7/8"	4-1/2"	11.6	K-55	New	8rd, LT&C	6,860'

Surface casing will be cemented to surface with \approx 270 cu. ft. (\approx 230 sx) Class B Neat + 1/4 lb/sk cello-flake + 2% CaCl₂. Yield = 1.27 cu. ft./sk. Weight = 15.2 lb/gal.

Marathon Oil Company
Bolack 28 4 E
1650' FSL & 1650' FEL
Sec. 28, T. 27 N., R. 11 W.
San Juan County, New Mexico

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Conventional centralizers will be set on the bottom two joints and every fourth joint to surface.

Production casing hole will be cemented to surface as follows. DV @ 4,000'.

First stage Lead will be cemented to 4,000' with 828 cu. ft. (600 sx) 50:50 Poz + 5 lb/sk gilsonite + 2% gel + 1/4 lb/sk cello-flake, dispersant, and FLA. Yield = 1.38 cu. ft./sk. Weight = 13.5 lb/gal. Excess = 25%.

Second stage Lead will be cemented to surface with 1440 cu. ft. (500 sx) Class B or H + 10 lb/sk gilsonite + 4% gel + 1/2 lb/sk cello-flake + 3% Econolite. Yield = 2.88 cu. ft./sk. Weight = 11.4 lb/gal. Excess = 50%

Second stage Tail will be cemented to 3,600' with 126 cu. ft. (100 sx) Class B or H Neat + 1/4 lb/sk cello-flake + 2% CaCl. Yield = 1.26 cu. ft./sk. Weight = 15.2 lb/gal. Excess = 10%.

Production casing may be cemented with an alternative foam cement.

First stage Lead will be cemented to 200' with 1320 cu. ft. (1,740 cu. ft. when foamed) or 1,000 sx 50:50 Poz + 2% gel + 2% Diacel LWL 0.094 gal/sk foaming agent. Yield = 1.32 cu. ft./sk (1.74 when foamed). Weight = 13.8 lb/gal (10.5 when foamed). Excess = 15%.

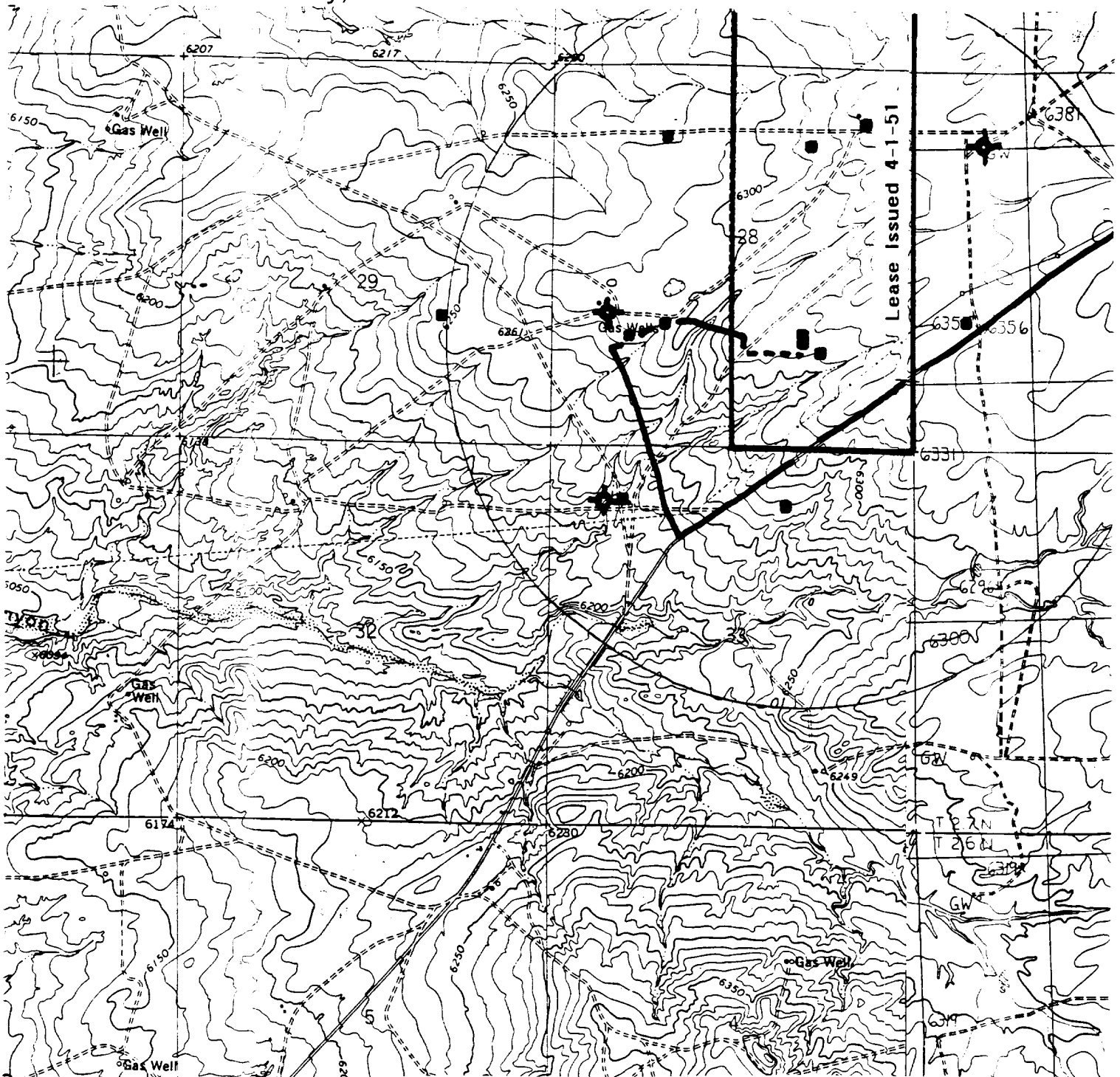
First stage Tail will be cemented to 6,000' with 146 cu. ft. (116 sx) Class B or H Neat + 1/4 lb/sk cello-flake + 2% CaCl. Yield = 1.26 cu. ft./sk. Weight = 15.2 lb/gal.




Cap will be cemented to surface with 75 cu. ft. (60 sx) Class B or H with 2% CaCl₂.

Conventional centralizers will be set on the bottom two joints, every second joint to 6,100' and every fourth joint from 2,000' to surface.

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1650' FSL & 1650' FEL
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PROPOSED WELL: ■ LEASE BOUNDARY: 
EXISTING WELL: ● EXISTING ROAD: 
P&A WELL: ⊕ PIPELINE & ROAD: 

PERMITS WEST INC
PROVIDING PERMITS FOR LAND USE