

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

Marbob Energy Corporation

3a. Area Code & Phone No.

505-748-3303

3. ADDRESS OF OPERATOR

P. O. BOX 227, Artesia, NM 88210

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

1723 FSL 2006 FWL

At proposed prod. zone

SAME

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

SEE SURFACE USE PLAN

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

1723'

16. NO. OF ACRES IN LEASE

N/A

17. NO. OF ACRES ASSIGNED TO THIS WELL

40

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

19. PROPOSED DEPTH

10500'

20. ROTARY OR CABLE TOOLS

ROTARY

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

4093' GR

22. APPROX. DATE WORK WILL START*

JUNE 1, 1997

PROPOSED CASING AND CEMENTING PROGRAM

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
17"	13 3/8"	48#	#40	LTC	500'	500 SX, CIRC
12 1/4"	8 5/8"	24# & 32#	J55	LTC	2300', 3125'	500 SX, CIRC
7 7/8"	5 1/2"	17#	N80	LTC	11000'	CMT SUFFICIENT
7 7/8"	5 1/2"	17#	S95	LTC	11500'	TO ISOLATE PROD. ZONE

PAY ZONE WILL BE PERFORATED AND STIMULATED AS NEEDED FOR OPTIMUM PRODUCTION.

- ATTACHED ARE:
1. SURFACE USE PLAN
 2. WELL LOCATION & DEDICATION ACRES PLAT
 3. SUPPLEMENTAL DRILLING DATA

OPER. GRID NO. 14049

PROPERTY NO. 20898

POOL CODE

EFF. DATE 6/4/97

API NO. 30-005-21149

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

Rhonda Nelson

TITLE Production Clerk

DATE 4/18/97

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TR Kruiger

TITLE

Shirley Masragn

DATE

5/28/97

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

DISTRICT I
P.O. Box 1960, Hobbs, NM 88241-1960

State of New Mexico
Energy, Minerals and Natural Resources Department

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

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

OIL CONSERVATION DIVISION

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

APR 15 1997

DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-005-21149	Pool Code ✓	Pool Name WILDCAT
Property Code 20898	Property Name BUTKUS 51 DEEP UNIT	Well Number 1
OGRID No. 14049	Operator Name MARBOB ENERGY CORPORATION	Elevation 4093

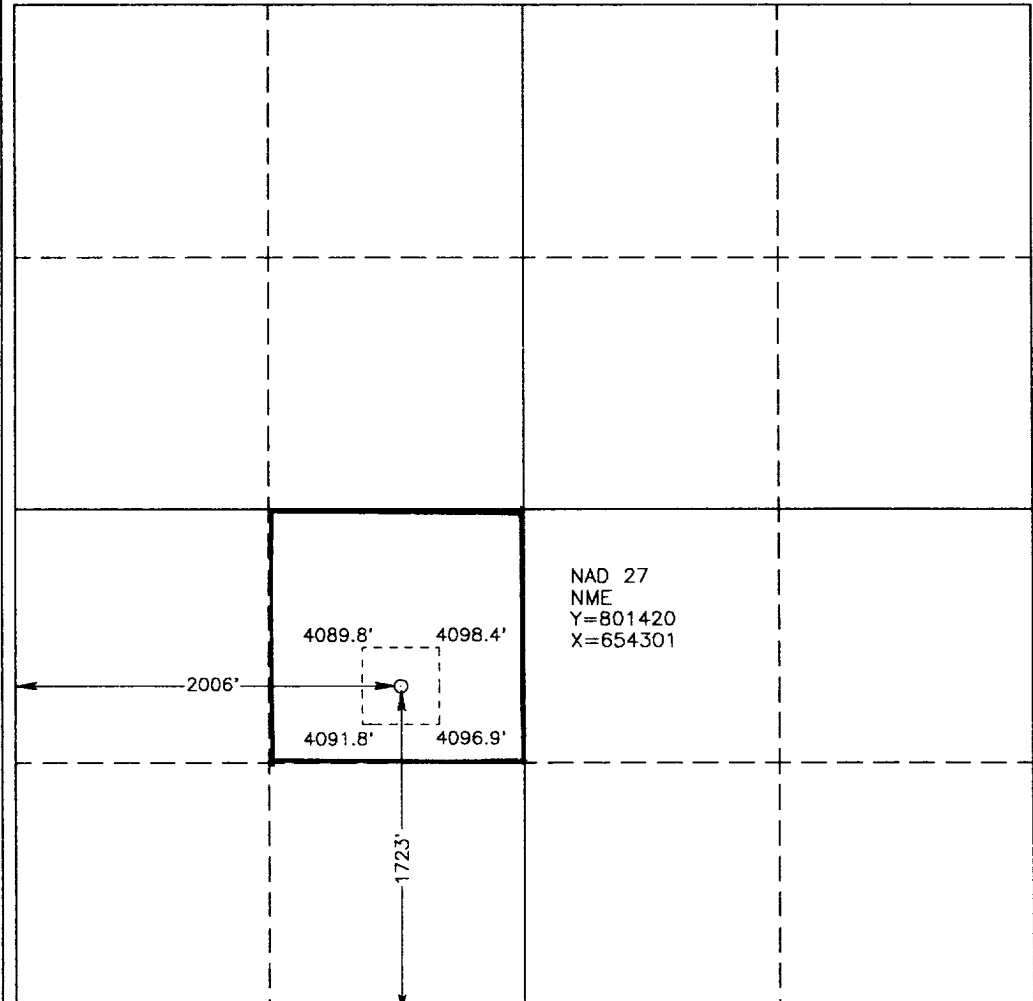
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	9	13 S	31 E		1723	SOUTH	2006	WEST	CHAVES

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 40	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

		<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Rhonda Nelson</i> Signature RHONDA NELSON Printed Name PRODUCTION CLERK Title 4/18/97 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>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> <p>APRIL 11, 1997</p> <p>Date Surveyed Signature & Seal of Professional Surveyor <i>Ronald E. Eidson</i> W.D. Num. 87-1-0655 Certificate No. JOHN W. WEST, 676 RONALD E. EIDSON, 3239 GARY G. EIDSON, 12641</p>
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DRILLING PROGRAM

Attached to Form 3160-3
Marbob Energy Corporation
Butkus 51 Deep Unit No. 1
1723' FSL and 2006' FWL
Section 9, T-13S, R-31E
Chaves County, New Mexico

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Permian	Surface	Abo	6825'
Rustler	1025'	Wolfcamp	8025'
Yates	1825'	Upper Penn	8750'
Queen	2600'	Atoka	10000'
San Andres	3200'	Chester	10500'
Glorietta	4600'	Lower Miss	10775'
Tubb	6050'	Devonian	11400'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Upper Permian Sands	0 - 200'	Fresh Water
Devonian	11,400'	Oil

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8 casing at 500' and circulating cement back to surface.

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD csg</u>	<u>Weight, Grade, Jt. Cond. Type</u>
17"	0 - 500	13 3/8"	48# #40 LTC NEW R-3
12 1/4"	500-3125	8 5/8"	24 & 32# (24# 0-2300' & 32# 2300'-3125') J-55 LTC NEW R-3
7 7/8"	3125-11000 11000-11500'	5 1/2"	17# N-80 LTC NEW R-3 S-95

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Cement Program:

13 3/8" Surface Casing: Cement w/ 500sx - circulate cement.
8 5/8" Intermediate Casing: Cemented with 500sx - circulate cement.
5 1/2" Production Casing: Cemented with sufficient cement to isolate production interval..

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of an annular and double ram-type (3000 psi wp) preventer. This unit will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4-1/2" drill pipe rams on bottom. This BOP will be nipped up on the 8 5/8" surface csg and used continuously until TD is reached. All BOP's and accessory equipment will be tested as covered in onshore order No. 2, part 3A before drilling out of surface casing.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and a 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with cut brine. The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (sec)</u>	<u>Waterloss (cc)</u>
0 - 500'	Fresh Water (Spud)	8.6 - 9.5	28 - 30	N.C. Oil - 0%
500'-3225'	Brine	10	28 - 32	N.C. Oil - 0%
3225'-6100'	Cut Brine	9.1 - 10	29 - 30	N.C. Oil - 0%
6100'-9100'	Salt Gel	9.1 - 9.7	35 - 38	N.C. Oil - 6%
9100'-11300'	Salt Gel/Starch	9 - 9.5	35 - 40	15-20 Oil - 3%
11300'-11500'	Gel / Starch	9 - 9.5	35 - 40	8-10 Oil - 1%

DRILLING PROGRAM
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7. Auxiliary Well Control and Monitoring Equipment:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

8. Logging, Testing, and Coring Program:

- (A) DST as conditions dictate. A minimum of one DST will be run.
- (B) The electric logging program will consist of GR/DLL/MSFL and GR/BHC Sonic will probably also run NEU/DEN. Other logging surface may be run as conditions dictate.
- (C) Sidewall cores possible. Possible conventional core in Devonian.
- (D) Further testing procedures will be determined after the 5 1/2" production casing has been cemented at TD based on drill shows, and log evaluation, and drill stem test results.

9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 104' and estimated bottom hole pressure (BHP) is 2250 psig.

10. Anticipated Starting Date and Duration of Operations:

Location and road work will not begin until approval has been received from the BLM. The anticipated spud date is late June 1, 1997. Once commenced, the drilling operation should be finished in approximately 35 days. If the well is productive, an additional 30 to 60 days will be required for completion and testing before a decision is made to install permanent facilities.

B.O.P. ARRANGEMENT RIG NO. 8

Marbob Energy Corporation

Burkus 51 Deep Unit No. 1

1723' FSC and 2006' FWC

Section 9-135-31E

Chaves County, New Mexico

Exhibit #1

NOTE: All BOP Equipment is 5000#
Working Pressure

