

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

811 SUBMITTING INSTRUCTIONS ON
ARTESIA, NM 87003-2834
(Reverse Side)

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL ☒

GAS ☐

OTHER ☐

SINGLE ☒

MULTIPLE ☐

2. NAME OF OPERATOR

ARCO Permian

990

3. ADDRESS AND TELEPHONE NO.

P.O. Box 1610, Midland, TX 79702

915-688-5570

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

At surface

1980' FNL, 1980' FWL

At proposed prod. zone

SAME

Unit F

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

21 MILES EAST FROM LOVING

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drilg. unit line, if any) 1980

16. NO. OF ACRES IN LEASE

1280.81

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.

1320

19. PROPOSED DEPTH

8450'

20. ROTARY OR CABLE TOOLS

ROTARY

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

3496

22. APPROX. DATE WORK WILL START*

9/98

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2	13-3/8 H-40	48 ST&C	860	700 Post ID-1
11	8-5/8 J-55	32 ST&C	4600	1300 9-24-99
7-7/8	5-1/2 J-55	15.5 # LT&C 17# LT&C	0-6700 6700-8450	935 API & LOC

SUBJECT WELL IS PLANNED AS A 8450' STRAIGHT HOLE.
3,000 PSI BOPE WILL BE USED FROM 860' TO TD.

ATTACHMENTS ARE AS FOLLOWS:

1. CERTIFIED LOCATION PLAT
2. DRILLING PLAN WITH ATTACHMENTS
3. SURFACE USE PLAN WITH ATTACHMENTS



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

Elizabeth G. Casbeer

TITLE

REGULATORY COMPLIANCE

DATE

8/8/98

(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:

STATE DIRECTOR

APPROVED BY

(ORIG SGD.) M. J. CHAVEZ

TITLE

DATE

9-3-99

*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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1998

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 96149	Pool Name LIVINGSTON RIDGE (DEL)
Property Code 20860	Property Name BARCLAY FEDERAL	Well Number 21
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 3496

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	1	23 S	31 E		1980	NORTH	1980	WEST	EDDY

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>Elizabeth L. Casbeer</i> Signature</p> <p>Elizabeth A. Casbeer Printed Name</p> <p>REG. /COMP. Title</p> <p>8/6/98 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>JULY 21, 1998</p> <p>Date Surveyed</p> <p>Signature of Seal of Professional Surveyor</p> <p>Professional Surveyor</p> <p>7-23-98</p> <p>98-11-1045</p> <p>Certificate No. RONALD A. EDSON 3239 RONALD A. EDSON 12641 RONALD A. EDSON 12185</p>

DRILLING PLAN

Attachment to BLM Form 3160-3

ARCO Permian

Well: Barclay Federal #21

1980'FNL, 1980'FWL

Section 1-T23S-R31E

Eddy County, New Mexico

1. Surface Geological Formation

Quaternary Formation

2. Estimated Tops of Geological Markers

<u>Formation</u>	<u>TVD</u>
Rustler	865'
Castile	1200'
Lamar Shale	4540'
Bell Canyon	4575'
Cherry Canyon	5650'
Brushy Canyon	7000'
Bone Spring	8425'

3. Estimated Tops of Possible Water, Oil, Gas or Minerals:

Sands above 800'	Water
Cherry & Brushy Canyon	Oil or Gas

4. Pressure Control Equipment

<u>Interval, TVD</u>	<u>Pressure Control Equipment</u>
0'-860'	No pressure control required
860'-TD	11", 3M psi double ram preventer with 3M psi annual preventer

Exhibits 1, 2 and 3 show the BOP stack arrangement, the choke manifold arrangements and the BOP specifications, respectively. The BOPE will be hydraulically tested per BLM requirements outlined by Onshore Oil and Gas Order No. 2. Pipe rams and blind rams will be functioned on each trip out of the hole. All BOPE checks and tests will be witnessed by ARCO's representative and will be noted on the IADC daily drilling report. Accessories to BOPE will include an upper kelly cock, lower kelly cock, and floor safety valve; all with pressure rating equivalent to the BOP stack.

5. Proposed Casing and Cementing Program

	<u>Hole Size</u>	<u>Interval M.D.</u>	<u>Casing Size</u>	<u>Weight & Grade</u>
Surface	17-1/2"	0'-860'	13-3/8"	48.0# H-40
Intermediate	11"	0-4500'	8-5/8"	32.0# J-55
Production	7-7/8"	4500-8450'	5-1/2"	15.5# J-55

Cement Program: (Actual volumes will be based on caliper log when available)

EXHIBIT 1

DRILLING OPERATIONS
CLASS -1: NORMAL PRESSURE < 10PPG
OPTION - 2: MMS STANDARD; SINGLE SIZE DRILL STRING



