

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Form approved.  
Budget Bureau No. 1004-0136  
Expires: December 31, 1991

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

b. TYPE OF WELL DRILL ☒ DEEPEN ☐  
OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Attention:

Amoco Production Company 778

Patty Haefele

3. ADDRESS AND TELEPHONE NO.

P.O. Box 800, Denver, Colorado 80201

(303) 830-4988

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

At surface 1245' FSL 1840' FEL

At proposed prod. zone

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

22.35 miles from Aztec, New Mexico

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

16. NO. OF ACRES IN LEASE

1280

17. NO. OF ACRES ASSIGNED TO THIS WELL

E/ 320

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

19. PROPOSED DEPTH

5903

20. ROTARY OR CABLE TOOLS

Rotary

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

6373' GR

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

22. APPROX. DATE WORK WILL START\*

01-01-96

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12.25"	8.625 J-55	24#	120'	106 cu.ft. Class B, circ to surface
7.875"	5.500" J-55	14#	3340'	129 cu.ft. Class B, circ to surface
4.75"	2.875" N-80	6.5#	5903'	289 cu.ft. Class B, TOC 3050'

Notice of Staking submitted on 10/13/95 as the Kernaghan B #3B.

Lease Description:

T31N-R8W: E/2 28; E/2 29; E/2 30; W/2 33.

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"

RECEIVED  
MAY 31 1996  
OIL CON. DIV.  
DIST. 3

RECEIVED  
MAY 13 PM 1:19  
OIL CON. DIV.

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 Patty Haefele

TITLE Staff Assistant

DATE 10-16-1995

(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

MAY 29 1996

DISTRICT MANAGER

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.

District I  
P.O. Box 1980, Hobbs, NM 88241-1980  
District II  
P.O. Drawer DI, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

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

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

RECEIVED  
MAY 13 1995  
PH 1:19

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <i>36-045-29382</i>		Pool Code 72319	Pool Name Blanco Mesaverde
Property Code <i>766</i>	Property Name KERNAGHAN B		Well Number # 3B
OGRID No. 000778	Operator Name AMOCO PRODUCTION COMPANY		Elevation 6373

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
O	29	31 N	8 W		1245	SOUTH	1840	EAST	SAN JUAN

11 Bottom Hole Location If Different From Surface

UL or lot no. 320	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres		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

16										17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  <i>Patty Haeefe</i> Signature Patty Haeefe Printed Name Staff Assistant Title 10/9/95 Date
										18 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 to the best of my belief.  August 7, 1995 Date of Survey Signature and Seal of Professional Surveyor: <i>GARY D. VAAN</i> NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR 7016 Certificate Number

BLM RECORD

# RECEIVED

## MAY 07 1996

### AMOCO PRODUCTION COMPANY DRILLING and COMPLETION PROGRAM

### BUREAU OF LAND MANAGEMENT FARMINGTON DISTRICT OFFICE

Lease/Well#: Kernaghan B #3B  
County: San Juan New Mexico  
Former name:

Surface Location: 1245' FSL & 1840' FEL of Section 29, T31N, R8W  
Field:

OBJECTIVE: Mesa Verde Gas				
METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER		
TYPE OF TOOLS		Actual GL-----Estimated KB		6373 6385
Rotary	DEPTH OF DRILLING Ground Level - TD	Marker	Depth (ft.)	SS Elev. (ft.)
LOGGING PROGRAM		Ojo Alamo	2,279	4,106
TYPE		Kirtland	2,396	3,989
		Fruitland Coal	2,706	3,679
		PC *	3,031	3,354
		Lewis Shale	3,190	3,195
		Cliff House	5,011	1,374
		Menefee Shale *	5,113	1,272
		Point Lookout *	5,453	932
		Mancos	5,853	532
		Gallup		
		Greenhorn		
		Graneros		
		Dakota		
		TOTAL DEPTH	5,903	482

Logging Program Remarks:

SPECIAL TESTS		DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE	DEPTH INTERVAL, ETC	FREQUENCY	DEPTH	FREQUENCY	DEPTH
None				Geograph	Int - TD
Remarks:		Remarks:			
		Mud Logging Program: None			
		Coring Program: None			

MUD PROGRAM:					
Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt	W/L, cc's/30 min.	
0' - 3340' (1) (2)	Water	8.6 - 9.2	Sufficient to clean hole	N/C	
3340' - TD (3)	Air/Mist				

Mud Program Remarks:  
1 - The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.  
2 - If required to mud up, mud up with a LSND designed for good hole cleaning.  
3 - If required to mud up, mud up with a LSND designed for good hole cleaning, API WL between 10-15.

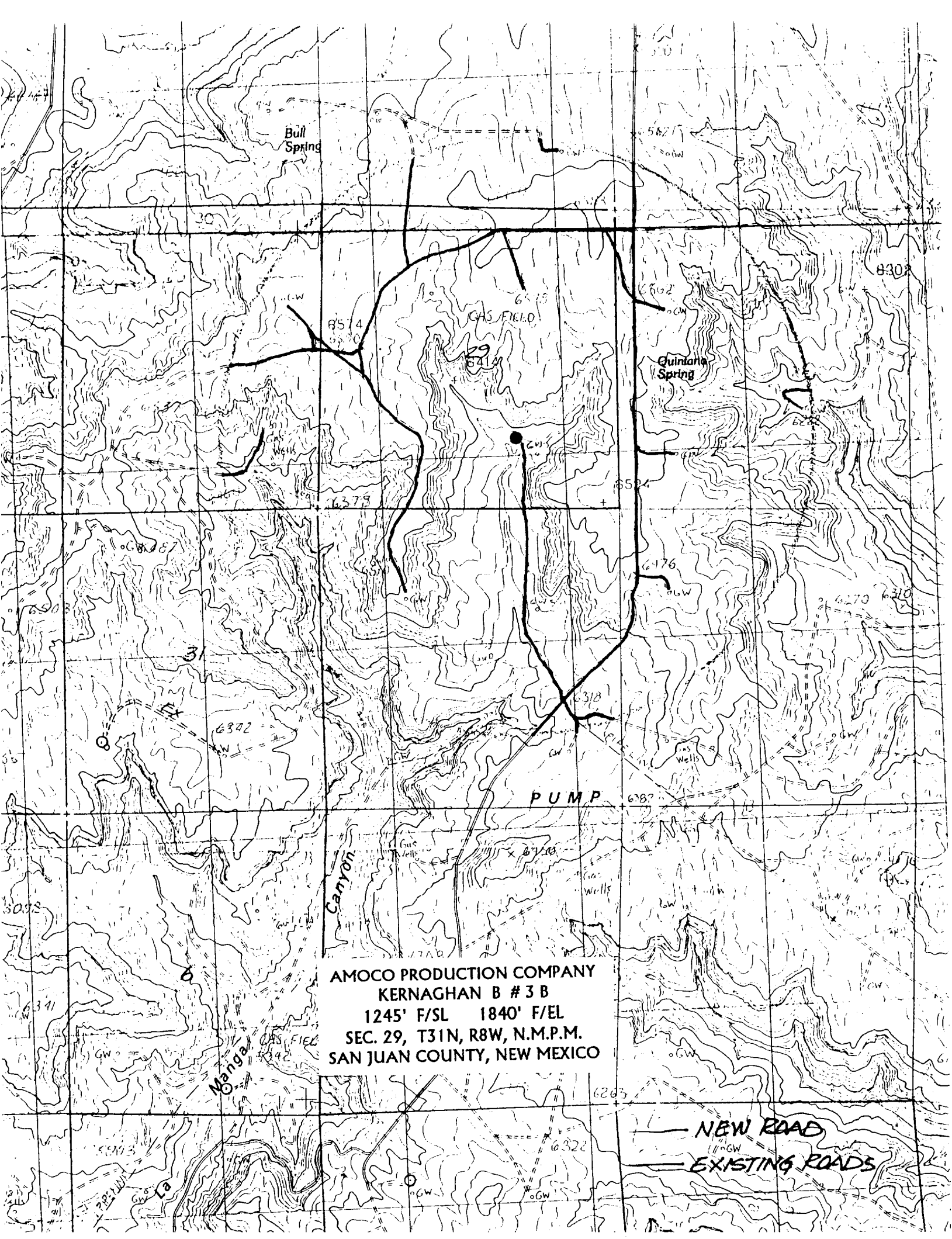
CASING PROGRAM:					
Casing String	Estimated Depth	Casing Size	Hole Size	Landing Point, Cement, Etc	
Conductor	250 <i>changed from 120'</i>	8-5/8"			
Surface	3,340	5-1/2"	7.875"	1, 2	
Production	5,903	2-7/8"	4.75"	3	

Casing Program Remarks:  
1 - Circulate cement to surface.  
2 - Set casing a minimum of 150' into the Lewis Shale  
3 - Circulate cement a minimum of 300' into the surface casing overlap.

### GENERAL REMARKS:

Business Unit Engineering staff to design completion program.

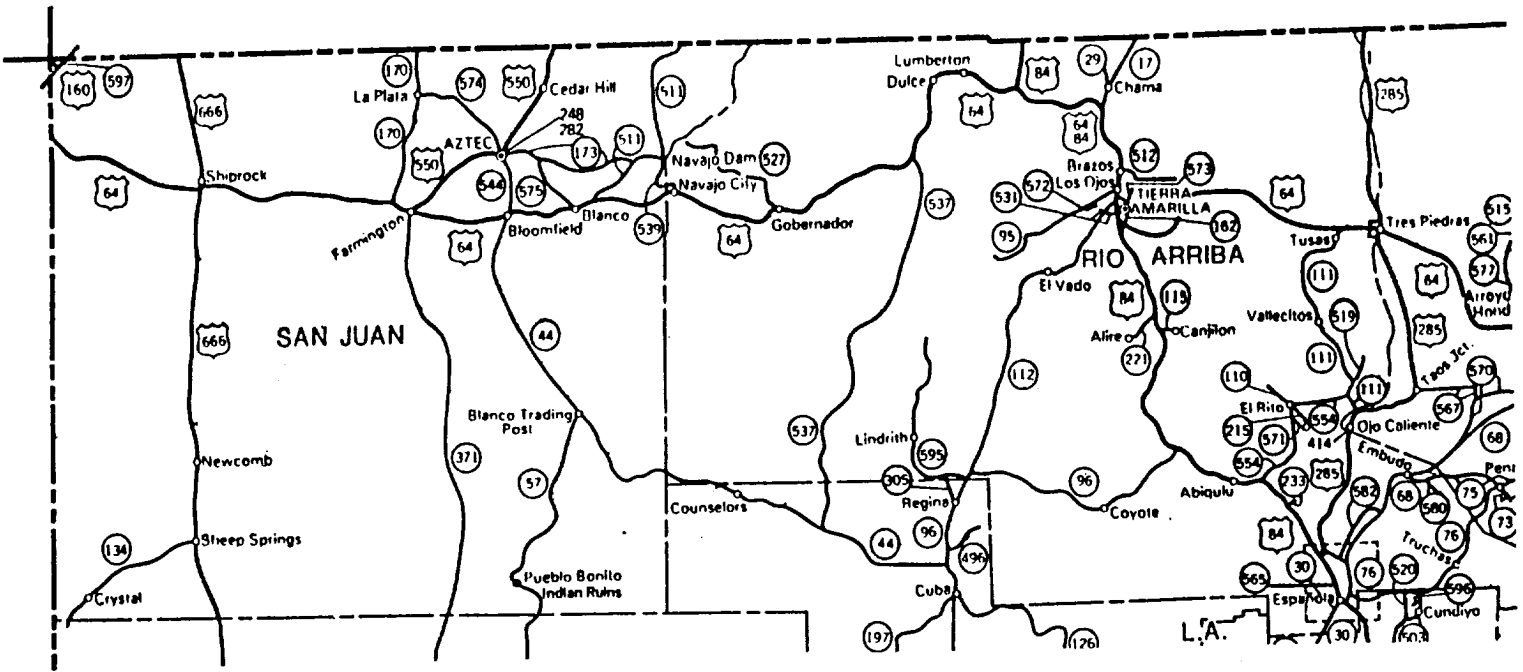
Form 46 Reviewed by:	Logging program reviewed by:	APPROVED:
PREPARED BY:	APPROVED:	APPROVED:
P. Edwards/Craig/Ovitz		
Form 46 7-84bw	For Production Dept	For Exploration Dept
Date: 10/12/95	Rev. Date: 5/6/96 7:55	File: kernb03b.xlw



AMOCO PRODUCTION COMPANY  
KERNAGHAN B # 3 B  
1245' F/SL 1840' F/EL  
SEC. 29, T31N, R8W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO

NEW ROAD

EXISTING ROADS



THOMPSON LS # 2R  
 1785' F/SL 1140' F/WL  
 SEC. 34, T30N, R8W, N.M.P.M.  
 RAIL POINT:  
 MUD POINT:  
 CEMENT POINT:

KERNAGHAN B #3B

