

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

30-045-27760  
Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

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 Coal Seam  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR

Amoco Production Company ATTN: J. L. Hampton

3. ADDRESS OF OPERATOR

P. O. Box 800 Denver, Colorado 80201

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

2090' FSL, 1040' FWL NW/SW  
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
10 miles from Aztec, NM

10. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)  
1040'

16. NO. OF ACRES IN LEASE  
1160.05

17. NO. OF ACRES ASSIGNED TO THIS WELL

320 acres W/2 319.50

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

19. PROPOSED DEPTH  
3378' TD

20. ROTARY OR CABLE TOOLS

Rotary

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

6579' GR

22. APPROX. DATE WORK WILL START\*

As soon as permitted

23. DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED PROPOSED CASING AND CEMENTING PROGRAM "GENERAL REQUIREMENTS"

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

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH
12 1/4"	9 5/8"	36#	250'
8 3/4"	7"	20#	3128'
6 1/4"	4 1/2"	22# 11.6	3378' (TD)

QUANTITY OF CEMENT  
200 cf Class B (cement to surface)  
876 cf Class B (cement to surface)  
None

Notice of Staking was Submitted: 3/20/90

Lease Description:

T31N,R9W:  
Sec. 19: Lots 5-20  
Sec. 20: Lots 1-16

RECEIVED  
APR 24 1990  
OIL CON. DIV.  
DIST. 3

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 J. L. Hampton / JLB TITLE Sr. Staff Admin. Supervisor DATE 3/28/90  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED AS AMENDED

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE APR 20 1990

CONDITIONS OF APPROVAL, IF ANY:

AREA MANAGER

\*See Instructions On Reverse Side

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APR 5 4 1980

OIL CON. DIV.  
Dist. 3

Amoco proposes to drill the well to further develop the Fruitland Coal reservoir. The well will be drilled to the surface casing point using native mud. The well will then be drilled to the intermediate casing point with a non-dispersed mud system. The attached modified 12" 3000 psi blowout preventer will be used. Amoco will attempt to complete the Fruitland coal by drilling the interval with water and air. A service unit will probably be used to drill into the coals using the attached modified 6" 3000 psi BOP. If commercial productivity is established, then the well will be completed as an open hole.

SURFACE CASING

<u>Quantity</u>	<u>Size</u>	<u>Weight</u>	<u>Description</u>	<u>Cement Program</u>
250'	9 5/8"	36#	K55 ST&C	200 cf Class B, 2% CaCl <sub>2</sub> 15.6 ppg

INTERMEDIATE CASING

<u>Quantity</u>	<u>Size</u>	<u>Weight</u>	<u>Description</u>	<u>Cement Program</u>
3128	7"	20#	K55 ST&C	876 cf Class B, 65:35:5 10% salt, .25% dispersant 13.1 ppg 118 cf Class B 2% CaCl <sub>2</sub> 15.6 ppg

The above casing design is based upon a 9.0#/gallon mud weight.

CONTINGENCY OPERATIONAL PLAN

In the event the well does not yield commercial volumes of gas from the open hole completion, the water filled hole will be mudded-up and weighted-up as necessary (9-11#/gal.) for hole stability and well control. The well will then be deepened approximately 200' into the Pictured Cliffs formation to provide necessary footage for a cased and cemented completion technique. The Fruitland coals will then be perforated and fracture stimulated. The Pictured Cliffs formation will be isolated with cement.

CONTINGENCY LINER

650'	4-1/2"	11.6#	K55 LT&C	250 cf Class B
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The contingency string is based upon an 11.0#/gallon mud weight.

EVALUATION

Mud logs will be the only logs run if the well is completed as an open hole. The log surveys (FDC/GR/CAL, Microlog, Mudlogger) will be run only if the well is drilled into the Pictured Cliffs formation, and only if well condition is suitable to allow proper wireline log interpretation.

Submit to Appropriate District Office  
 State Lease - 4 copies  
 Fee Lease - 3 copies

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-102  
 Revised 1-1-89

**OIL CONSERVATION DIVISION**  
 P.O. Box 2088  
 Santa Fe, New Mexico 87504-2088

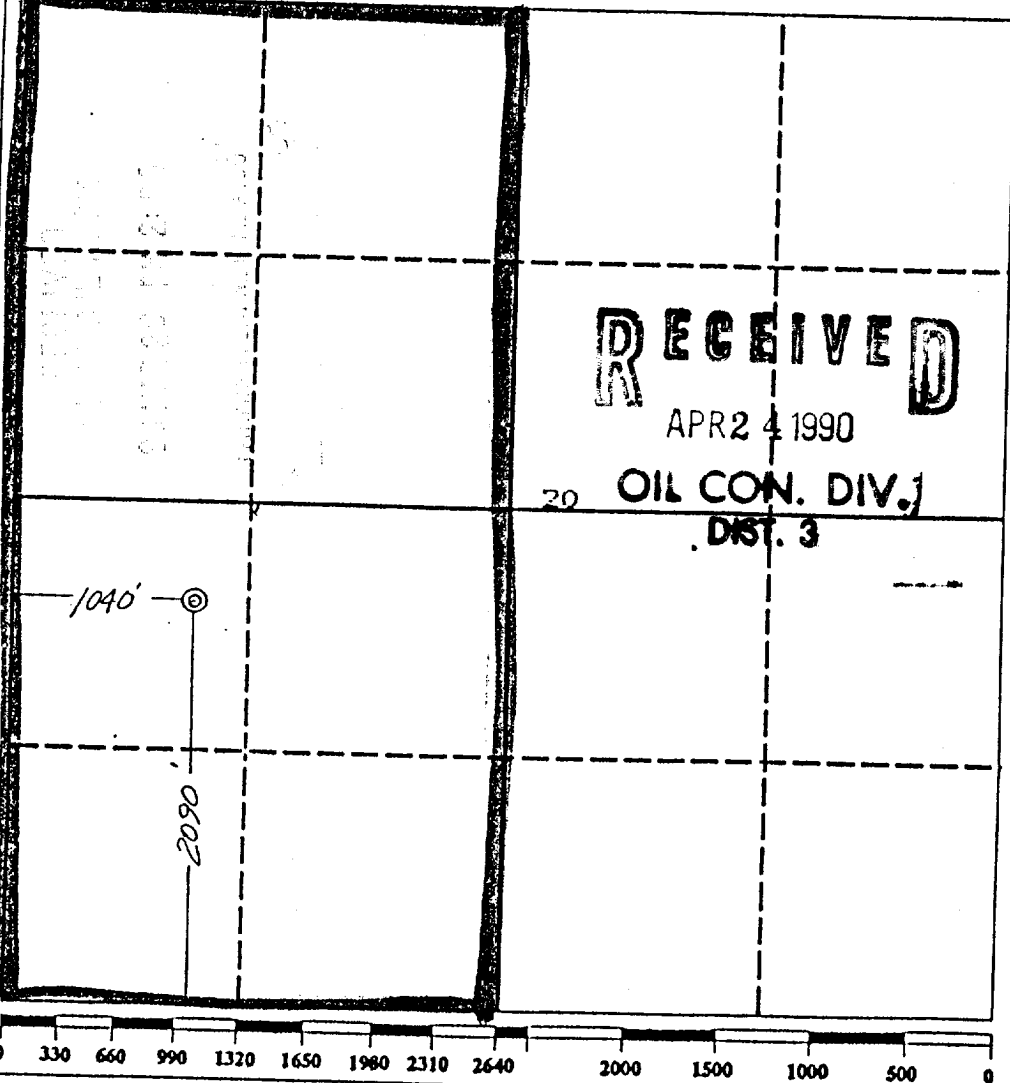
DISTRICT I  
 P.O. Box 1980, Hobbs, NM 88240

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

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

**WELL LOCATION AND ACREAGE DEDICATION PLAT**  
 All Distances must be from the outer boundaries of the section

Operator <b>AMOCO PRODUCTION COMPANY</b>		Lease <b>BARRETT /A/</b>		Well No. <b># 15</b>
Unit Letter <b>L</b>	Section <b>20</b>	Township <b>31 NORTH</b>	Range <b>9 WEST</b>	County <b>NMPM SAN JUAN</b>
Actual Footage Location of Well: <b>2090</b> feet from the <b>SOUTH</b> line and <b>1040</b> feet from the <b>WEST</b> line				
Ground level Elev. <b>6579</b>	Producing Formation <b>Fruitland Coal</b>	Pool <b>Basin Fruitland Coal Gas</b>	Dedicated Acreage: <b>319.80</b> Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?  <input type="checkbox"/> Yes    <input type="checkbox"/> No    If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>				



**OPERATOR CERTIFICATION**  
 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *J. L. Hampton*  
 Printed Name: *J. L. Hampton*  
 Position: *Sp. Staff. Admin. Supv.*  
 Company: *Amoco Prod. Company*  
 Date: *3/19/90*

**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 knowledge and belief.

Date Surveyed: *March 14, 1990*

Signature & Seal of Professional Surveyor: *D. VANN*  
 Registered Professional Land Surveyor: *7016*  
 Gary Vann  
 Certificate No. 7016



CC Reservoir

Beanle Pockets Springs

Beanle

KIKS

JOHN BROWN Canyon

John Brown Spring

Cabin Canyon

Cabin Canyon

John Brown Canyon

RIDDLE GAS COM (G) #11

Little

pump

Hart Mountain

WALKER GAS COM (A) #1  
Alamo Spring

**NEW ROAD**  
**EXISTING ROADS**

AMOCO PRODUCTION COMPANY  
BARRETT /A/ # 15  
2090' F/SL 1040' F/WL  
SEC. 20, T31N, R9W, NMPM  
SAN JUAN COUNTY, NEW MEXICO