

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

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

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 ☒

Coal Seam  
OTHER

SINGLE  
ZONE ☒

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Amoco Production Company

3. ADDRESS OF OPERATOR

2325 East 30th Street, Farmington NM 87401

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

At surface 1490' FNL X 1430' FEL

At proposed prod. zone

Same

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

16 miles northeast of Aztec NM

15. DISTANCE FROM PROPOSED\*

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

1430'

16. NO. OF ACRES IN LEASE

320.00

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320 N/2

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

19. PROPOSED DEPTH  
See attached plan  
3000'

20. ROTARY OR CABLE TOOLS

Rotary

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

6007' GR

22. APPROX. DATE WORK WILL START\*

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

23. PROPOSED CASING AND CEMENTING PROGRAM  
"GENERAL REQUIREMENTS"

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	
12-1/4"	9-5/8"	36# K55	250'	200 cf Class B
8-3/4"	7"	20# K55	2505'	704 cf Class B
6-1/4"	5-1/2"	23# P110	2738'	

Notice of Staking was submitted 4-18-89.

Lease description:

T30N-R9W, NMPM  
Sec. 13: SW/4  
Sec. 23: NE/4

RECEIVED

JUN 19 1989

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. Hampton*

TITLE Admin. Supv.

DATE

5-16-89

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*AS*

APPROVED

APPROVED  
AS AMENDED

*James Kelly*  
AREA MANAGER

\*See Instructions On Reverse Side

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 11" 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 a 5-1/2" uncemented liner will be run. Amoco reserves the right to utilize a drilling rig to drill this hole section.

Quantity	Size	Weight	Description	Cementing Program
<u>SURFACE CASING</u>				
<u>250'</u>	9-5/8"	36#	K55 ST&C	200 cf Class B, 2% CaCl <sub>2</sub> 15.6 ppg
<u>INTERMEDIATE STRING</u>				
<u>2505'</u>	7"	20#	K55 ST&C	704 cf Class B, 65:35:6 10% salt, .25% dispersant 13.1 ppg 118 cf Class B, 2% CaCl <sub>2</sub> 15.6 ppg
<u>LINER</u>				
<u>300'</u>	5-1/2"	23#	P110 LT&C	None

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 250' 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.

<u>CONTINGENCY LINER</u>				
<u>650'</u>	4-1/2"	11.6#	K-55 LT&C	250 cf Class B

The contingency string is based upon a 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, DIL/SP/GR, 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

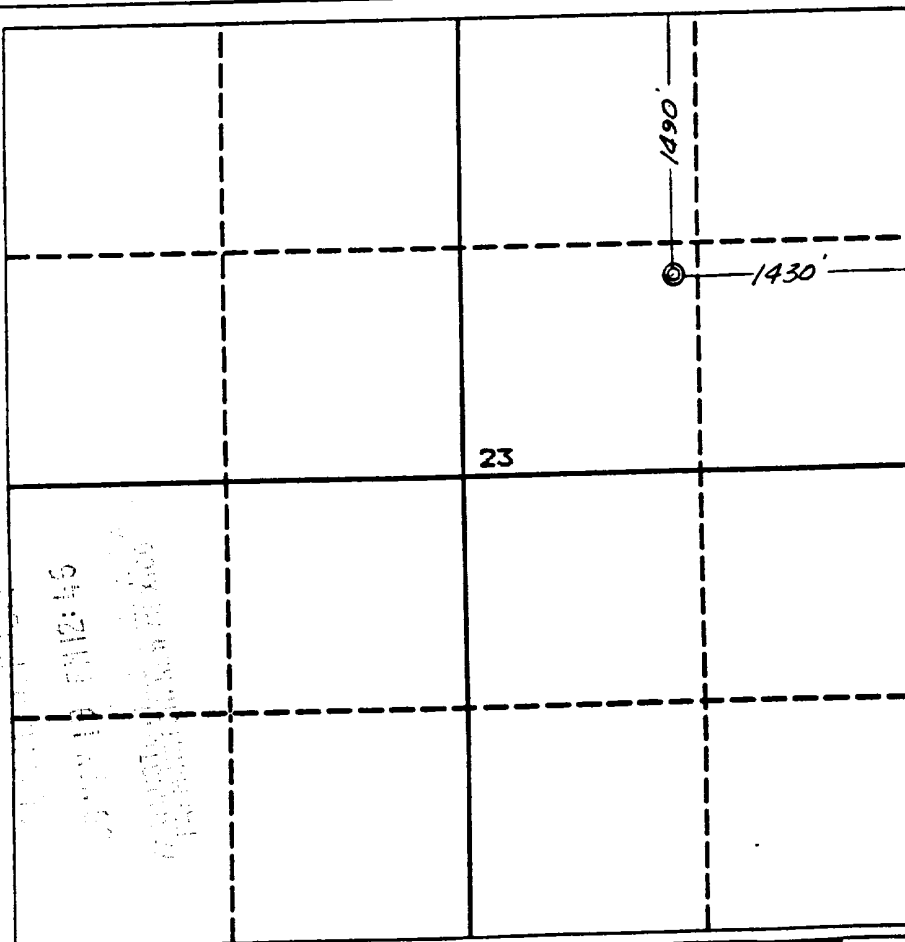
DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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>FLORANCE /S/</b>		Well No. <b># 4</b>
Unit Letter <b>G</b>	Section <b>23</b>	Township <b>30 NORTH</b>	Range <b>9 WEST</b>	County <b>SAN JUAN</b>	
Actual Footage Location of Well: <b>1490</b> feet from the <b>NORTH</b> line and <b>1430</b> feet from the <b>EAST</b> line					
Ground level Elev. <b>6007</b>	Producing Formation <b>Fruitland</b>		Pool <b>Basin Fruitland Coal Gas</b>		Dedicated Acreage: <b>N/2 320</b> Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
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).
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.?  
☐ Yes ☐ No If answer is "yes" type of consolidation \_\_\_\_\_  
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_  
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.



OPERATOR CERTIFICATION

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

Signature *B. D. Shaw*

Printed Name  
**B. D. Shaw**

Position  
**Admin. Supv.**

Company  
**Amoco Production**

Date  
**4-18-89**

SURVEYOR CERTIFICATION

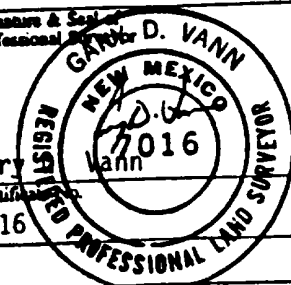
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

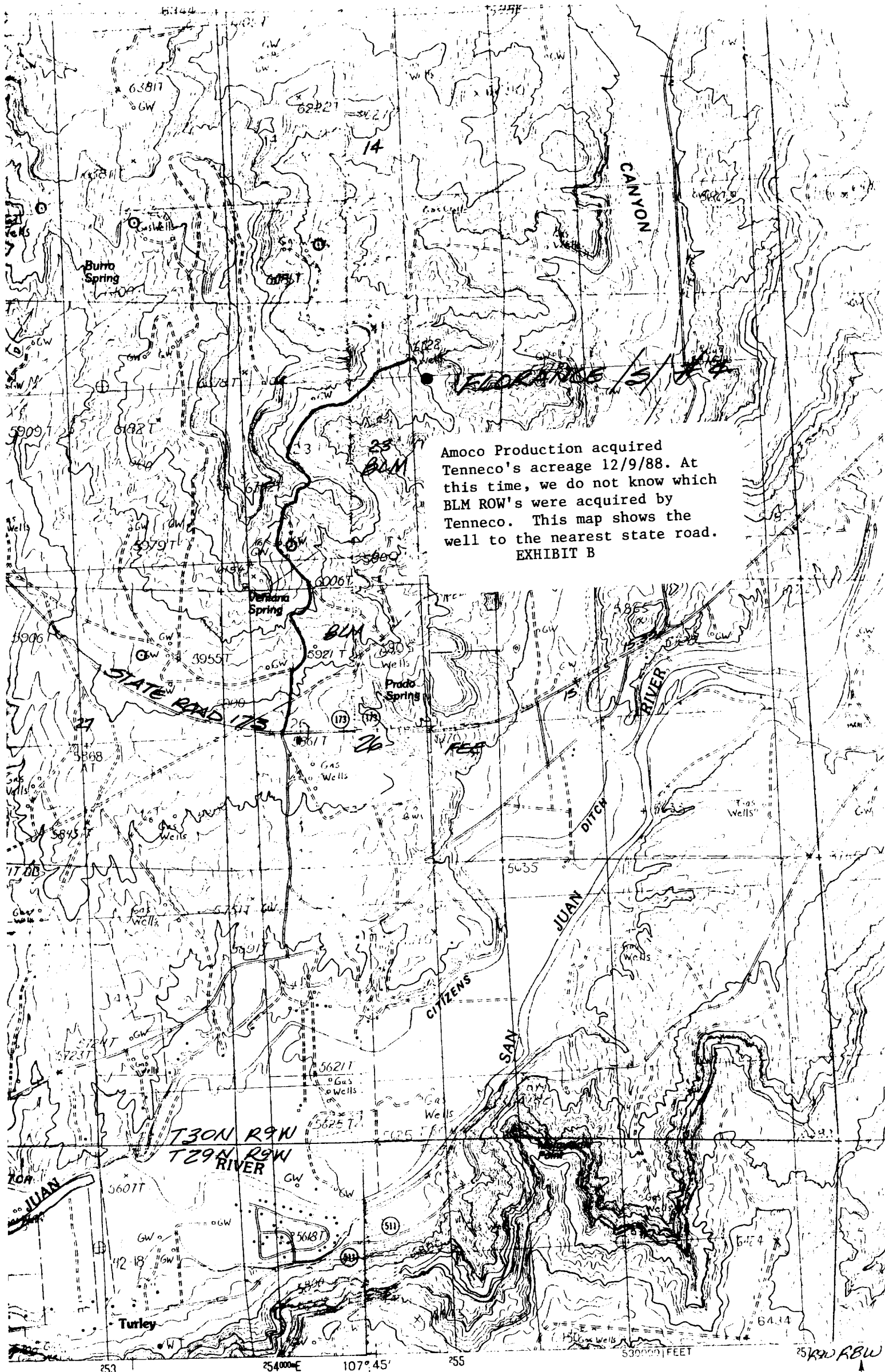
Date Surveyed  
**April 14, 1989**

Signature & Seal of  
Professional Surveyor

*Gary D. Vann*  
**GARY D. VANN**

Certification  
**7016**





Amoco Production acquired Tenneco's acreage 12/9/88. At this time, we do not know which BLM ROW's were acquired by Tenneco. This map shows the well to the nearest state road.  
EXHIBIT B

INTERIOR GEOLOGICAL SURVEY, RESTON, VIRGINIA

ROAD LEGEND

Improved Road

MAP BY THE UNITED STATES GEOLOGICAL SURVEY  
FROM AERIAL PHOTOGRAPHS TAKEN ..... 1981  
KED ..... 1981 MAP EDITED ..... 1985  
..... TRANSVERSE MERCATOR  
..... ZONE 13  
..... NEW MEXICO, WEST ZONE

NORTH