

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IS TRIPLICATE*
(Other instructions on
reverse side)

30-045-27955
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 <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. SF - 080917
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME NONE
2. NAME OF OPERATOR ARCO Oil and Gas Company		7. UNIT AGREEMENT NAME -----
3. ADDRESS OF OPERATOR P.O. Box 1610, Midland, Texas 79702		8. FARM OR LEASE NAME Atlantic Fruitland 33
4. LOCATION OF WELL (Report clearly and in accordance with any State requirements.) At surface 1489' FSL & 1078' FWL At proposed Prod. zone Approximately the same		9. WELL NO. 2
13. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 12 miles NE of Aztec, New Mexico		10. FIELD AND POOL, OR WILDCAT Basin-Fruitland Coal Gas Pool
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. line, if any) 1078'		11. SEC., T., M., OR BLK. AND SURVEY OR AREA Sec 33, T31N-R10W
16. NO. OF ACRES IN LEASE 2538.18		12. COUNTY San Juan
17. NO. OF ACRES ASSIGNED TO THIS WELL 309.66-020 W/2		13. STATE NM
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 372'		14. PROPOSED DEPTH 3058'
19. ROTARY OR CABLE TOOLS Rotary		20. APPROX. DATE WORK WILL START Spud 6/90
21. ELEVATIONS (Show whether GR or KB) 6301' GR		22. APPROX. DATE WORK WILL START Spud 6/90

23. and appeal PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT ¹¹³
12-1/4"	8-5/8"	24#	300' 500'	3250 cuft
7-7/8"	5-1/2"	15.5#	3058'	1200 cuft

It is proposed to drill a 12-1/4" hole to 300' using fresh water spud mud. After setting surface casing, the shoe will be drilled out with a 7-7/8" bit, continuing to TD. A low solids, fresh water gel/polymer mud system will be utilized. A water loss of less than 20cc will be maintained and a mud weight of 9.5 ppg will be used to balance the 1600 psi Fruitland pore pressure. At TD, open-hole logs consisting of GR/CAL/FDC will be run and 5-1/2" production casing will be set and cemented to surface.

Pursuant to the "Onshore Oil and Gas Order #1" 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 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 Ken W. Gosnell 915 688-5672 TITLE Regulatory Coordinator DATE 5-2-90
(This space for Federal or State Use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
AS AMENDED

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly 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.

NMOCD

JUN 26 1990
Ken Townsend
FOR AREA MANAGER

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 Arco Oil & Gas Company			Lease Atlantic Fruitland 33		Well No. 2
Unit Letter L	Section 33	Township 31 N.	Range 10 W.	County San Juan Co., N.M.	
Actual Footage Location of Well: 1489' feet from the South line and 1078' feet from the West line					
Ground level Elev. 6301'	Producing Formation Fruitland		Pool Basin-Fruitland Coal Gas Pool		Dedicated Acreage 309.60 w/2 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.

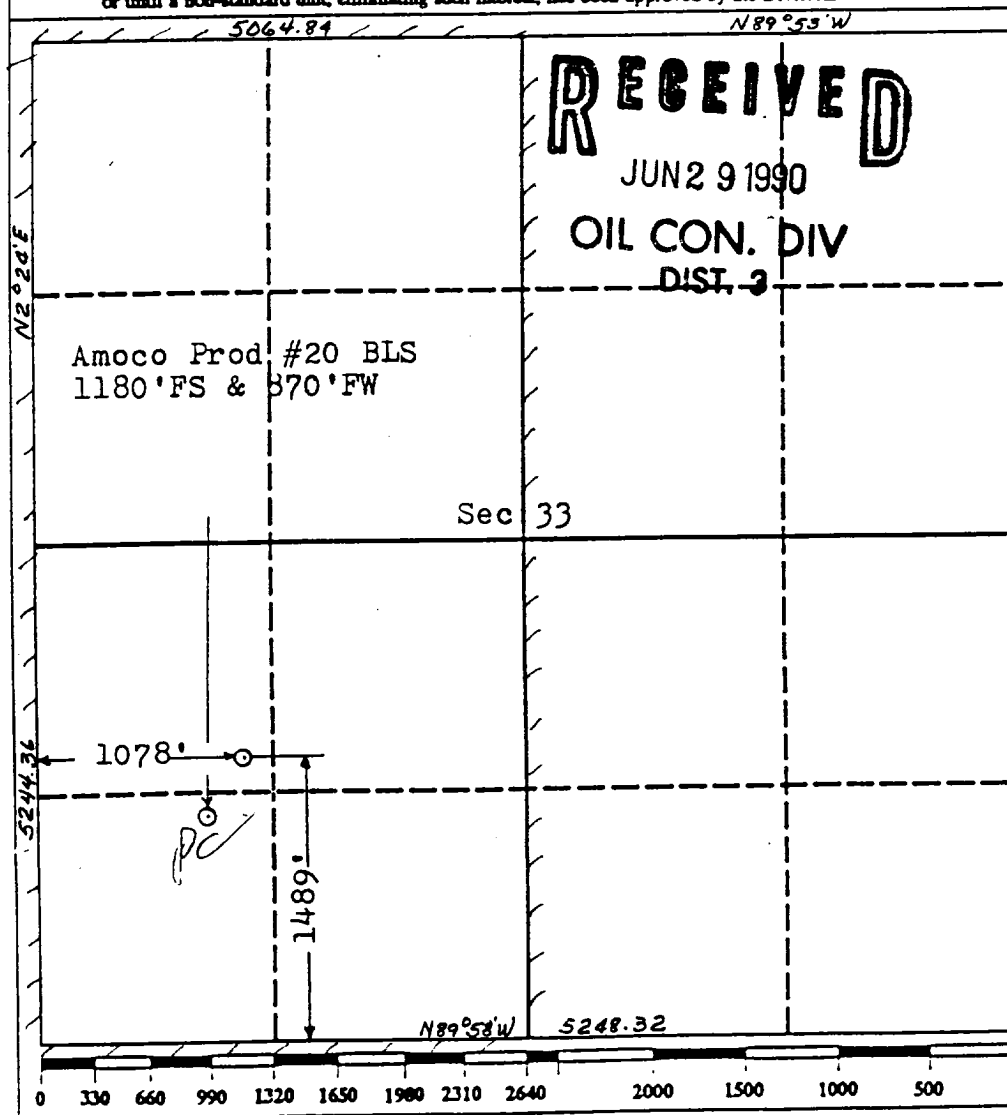
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.

Sign: Joe L. Talley
Printed Name: Joe L. Talley
Position: Drilling Engineer
Company: ARCO Oil & Gas
Date: 3-9-90

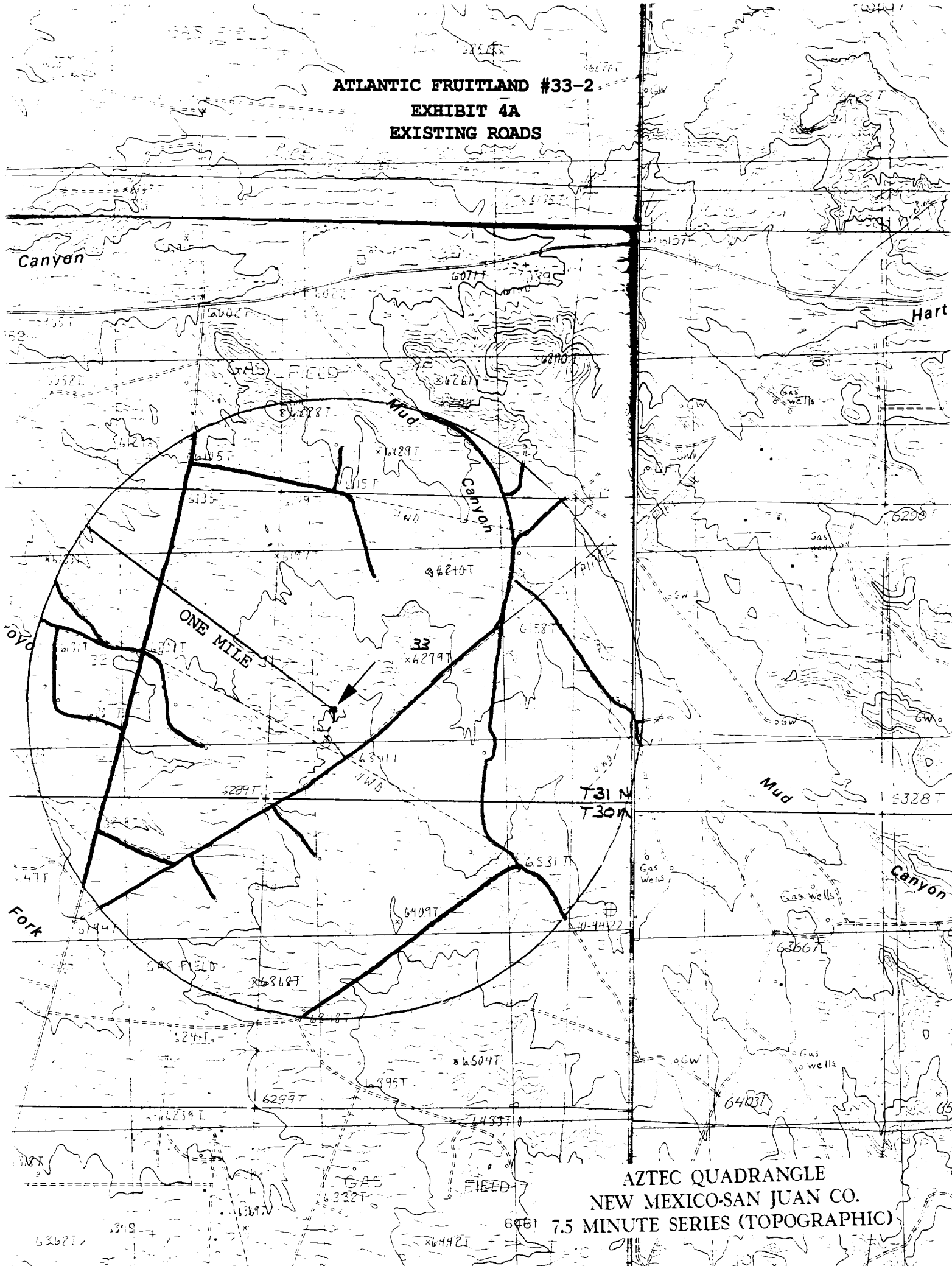
SURVEYOR CERTIFICATION

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: 3-9-90
Signature & Seal of Professional Surveyor: ROY A. RUSH
Certificate No.: 8894
Professional Land Surveyor: 8894

ATLANTIC FRUITLAND #33-2

EXHIBIT 4A
EXISTING ROADS



AZTEC QUADRANGLE
NEW MEXICO-SAN JUAN CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)