

May 1961

(Other instructions on reverse side)

APPROVAL NO. 12-1979

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

6/320

30-039-22454

**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 INFILL

SINGLE ZONE ☐MULTIPLE ZONE ☒

## 2. NAME OF OPERATOR

AMOCO PRODUCTION COMPANY

## 3. ADDRESS OF OPERATOR

501 Airport Drive, Farmington, New Mexico 87401

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

At surface

I 1700' FSL and 940' FEL, Section 3, T26N, R4W

At proposed prod. zone

Same

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

12 miles Southeast of Gobernador, New Mexico

## 15. DISTANCE FROM PROPOSED\*

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

940'

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

2861'

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

6905' GL

## 23.

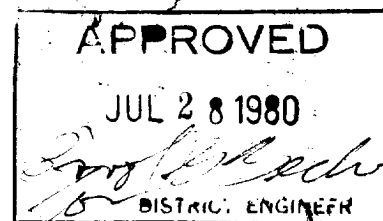
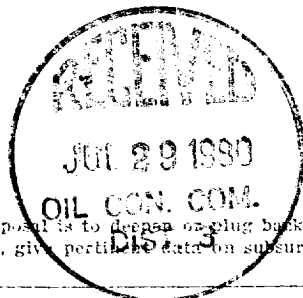
## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8" (New)	48# H-40	300'	530 sx Class "B" w/2% CaCl <sub>2</sub> -circ
12-1/4"	9-5/8" (New)	32.3# H-40	3762'	995 sx Class "B" 65:35 POZ, 6% gel, 2# med tuf plug/sx, and 0.8% FLA. Tail in w/100 sx Class "B"
8-3/4"	7" (New)	23# N-80	8114'	Neat-circ.

This application to drill an Infill Basin Dakota/Mesaverde well is pursuant to Order No. R-1670-V approved by the NMOC on May 22, 1979. This well will qualify under Section 13 of the Natural Gas Policy Act under Order No. R-1670-V.

The gas from the Mesaverde formation is dedicated to Southern Union Gas Co. and the gas from the Dakota formation is dedicated to El Paso Natural Gas Co.

180 sx Class "B" 65:35 POZ, 6% gel, 2# med tuf plug/sx, and 0.8% FLA. Tail in w/690 sx Class "B" Neat-circ to intermediate casing.



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 prevention program, if any.

24.

SIGNED

B.E. Fackrell

TITLE

District Engineer

DATE

May 16, 1980

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"STATE OF NEW MEXICO"

ak 3mm

NMOC

## OIL CONSERVATION DIVISION

P. O. BOX 2088

Form C-107  
Revised 10-1-78STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

All distances must be from the outer boundaries of the Section.

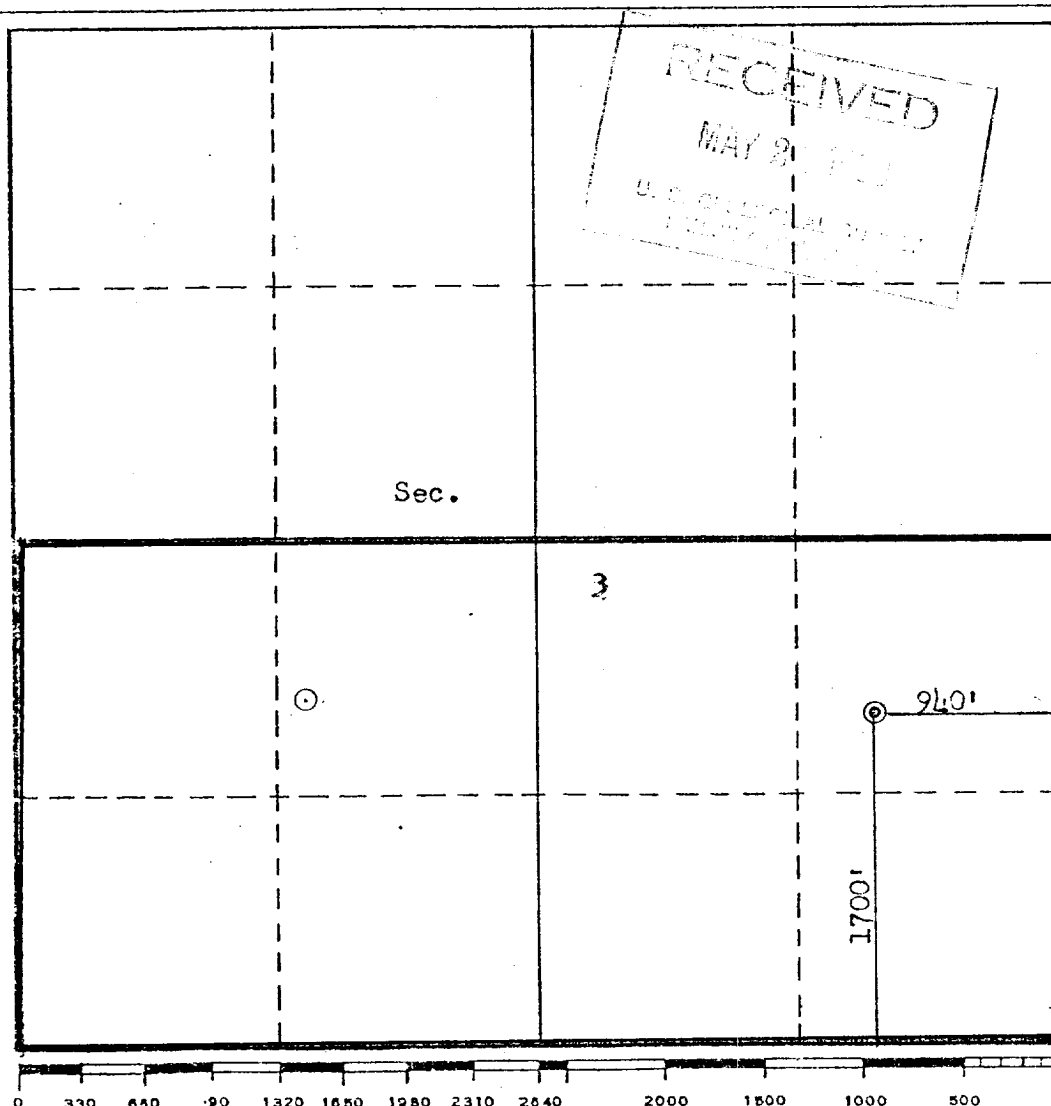
Operator <b>AMOCO PRODUCTION COMPANY</b>			Lease <b>JICARILLA APACHE 102</b>		Well No. <b>8-M</b>
Unit Letter <b>I</b>	Section <b>3</b>	Township <b>26N</b>	Range <b>4W</b>	County <b>Rio Arriba</b>	
Actual Footage Location of Well: <b>1700</b> feet from the <b>South</b> line and <b>940</b> feet from the <b>East</b> line					
Ground Level Elev. <b>6905</b>	Producing Formation <b>Dakota/Mesaverde</b>		Pool <b>Basin Dakota/Blanco Mesaverde</b>		Dedicated Acreage: <b>320</b> Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 interests 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 interests, has been approved by the Commission.



## CERTIFICATION

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

*B.E. Fackrell*

Name

B.E. FACKRELL

Position

DISTRICT ENGINEER

Company

AMOCO PRODUCTION COMPANY

Date

APRIL 29, 1980

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 25, 1980

Registered Professional Engineer  
and/or Land Surveyor*Fred B. Kerr Jr.*  
Fred B. Kerr Jr.

Certificate No.

3950

B. KERR, JR.

SUPPLEMENTAL INFORMATION TO FORM 9-331C

JICARILLA APACHE 102 NO. 8M  
1700' FSL & 940' FEL, SECTION 3, T26N, R4W  
RIO ARRIBA COUNTY, NEW MEXICO

The geologic name of the surface formation is the Tertiary San Jose.

Estimated tops of important geologic markers and potential water, oil, or gas bearing formations:

<u>FORMATION</u>	<u>DEPTH</u>	<u>ELEVATION</u>
Ojo Alamo	3342 '	3576 '
Kirtland	3490 '	3428 '
Fruitland	3559 '	3359 '
Pictured Cliffs	3662 '	3256 '
Chacra (if present)	'	'
Mesaverde [ Cliff House	4614 '	2304 '
Point Lookout	5359 '	1559 '
Gallup	7008 '	- 90 '
Dakota	7839 '	- 921 '
TD	8114 '	-1196 '

Estimated KB elevation: 6918 '

Drilling fluid to intermediate point will be a fresh water, low solids non-dispersed mud system. Air or gas will be used to drill to TD. Open hole logging program will include logs from TD to below intermediate casing:

Induction Electric-SP-Gamma Ray  
Compensated Formation Density-Compensated Neutron-Gamma Ray

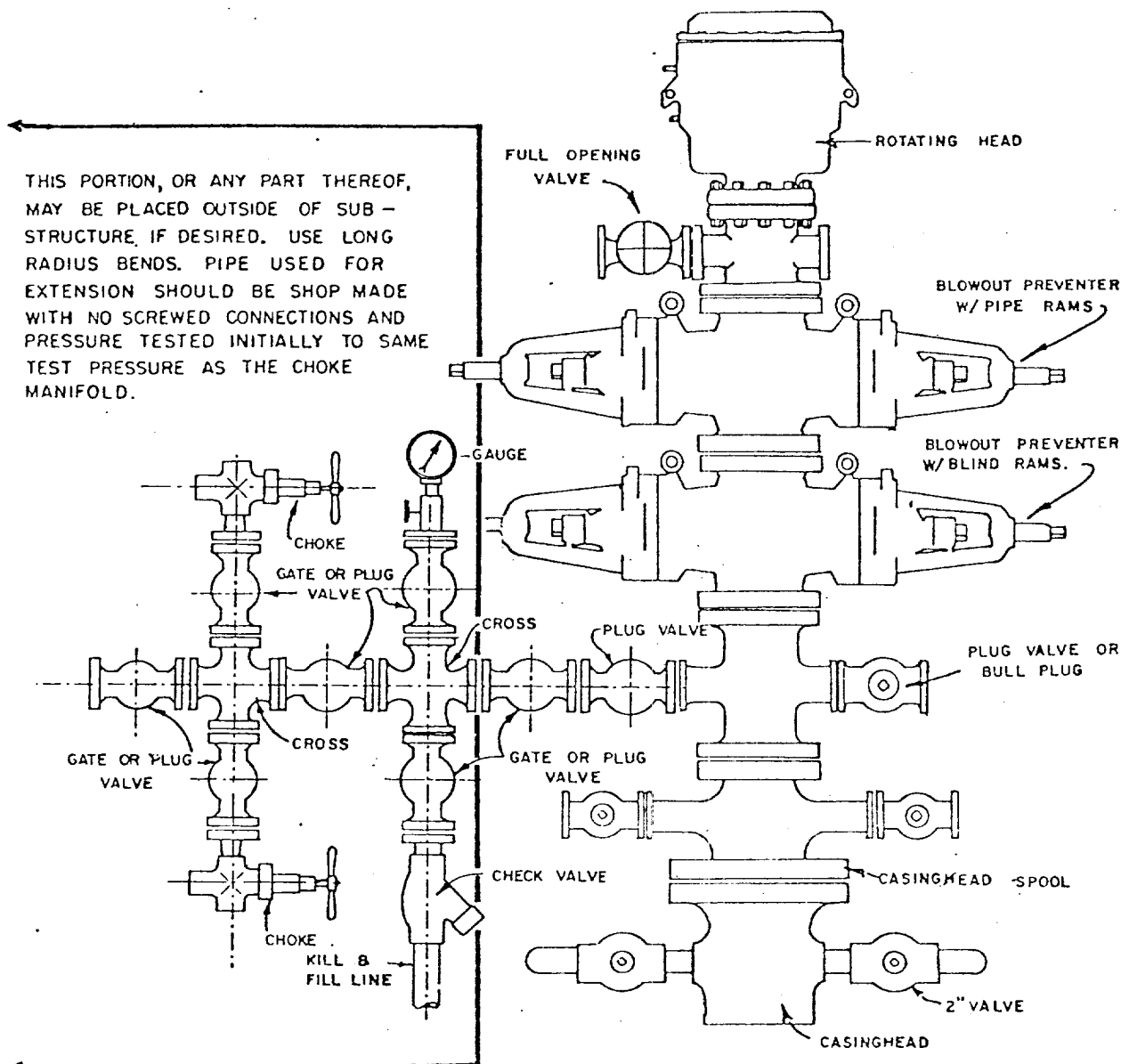
Completion design will be based on these logs. No cores or drill stem tests will be taken.

Operations will commence when permitted and last approximately 4 weeks.

Amoco's standard blowout prevention will be employed (see attached drawing).

In the past, drilling in this area has shown that no abnormal pressures, temperatures, nor hydrogen sulfide gas will be encountered.

1. Blowout Preventers and Master Valve to be fluid operated, and all fittings must be in good condition.
2. Equipment through which bit must pass shall be as large as the inside diameter of the casing that is being drilled through.
3. Nipple above Blowout Preventer shall be same size or larger than BOP being drilled through.
4. All fittings to be flanged.
5. Omsco or comparable safety valve must be available on rig floor at all times with proper connection or sub. The I.D. of safety valve should be as great as I.D. of tool joints of drill pipe, or at least as great as I.D. of drill collars.



## BLOWOUT PREVENTER HOOKUP

API Series # 900

EXHIBIT D-4

OCTOBER 16, 1969

Operation of BOP by closing both pipe and blind rams will be tested each trip or, on long bit runs, pipe rams will be closed once each 24 hours.

MULTI-POINT SURFACE USE PLAN

JICARILLA APACHE 102 NO. 8M  
1700' FSL & 940' FEL, SECTION 3, T26N, R4W  
RIO ARRIBA COUNTY, NEW MEXICO

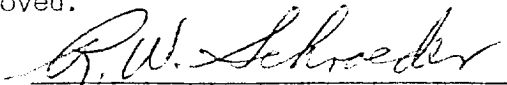
1. The attached topographic map shows the proposed route to the location.
2. It will not be necessary to build any access road.
3. Existing oil and gas wells within a one-mile radius of our proposed well have been spotted on the lease road map.
4. There is a 380-barrel tank and facilities located at Jicarilla Apache 102 Well No. 24, approximately 800 feet south.
5. Water will be hauled from Tapacito Water Holes.
6. No construction materials will be hauled in for this location.
7. A 125' by 125' pit will be built on location to hold all drilling waste. Upon completion of the well, pit will be fenced and waste and liquids left to dry, then pit will be filled and leveled. If any liquids remain, they will be hauled away prior to back filling.
8. There are neither airstrips nor camps in the vicinity.
9. The well site layout, reserve, burn and trash pits are shown on the attached Drill Site Specification Sheet. A 7-foot cut will be made on west side.
10. Restoration of the surface will be accomplished by cleaning up and leveling upon completion of the well. Reseeding of the site will be carried out as instructed by the Bureau of Indian Affairs.
11. The general topography is a sloping area, with sandy clayey loam soil; vegetation consists of sagebrush and native grasses.

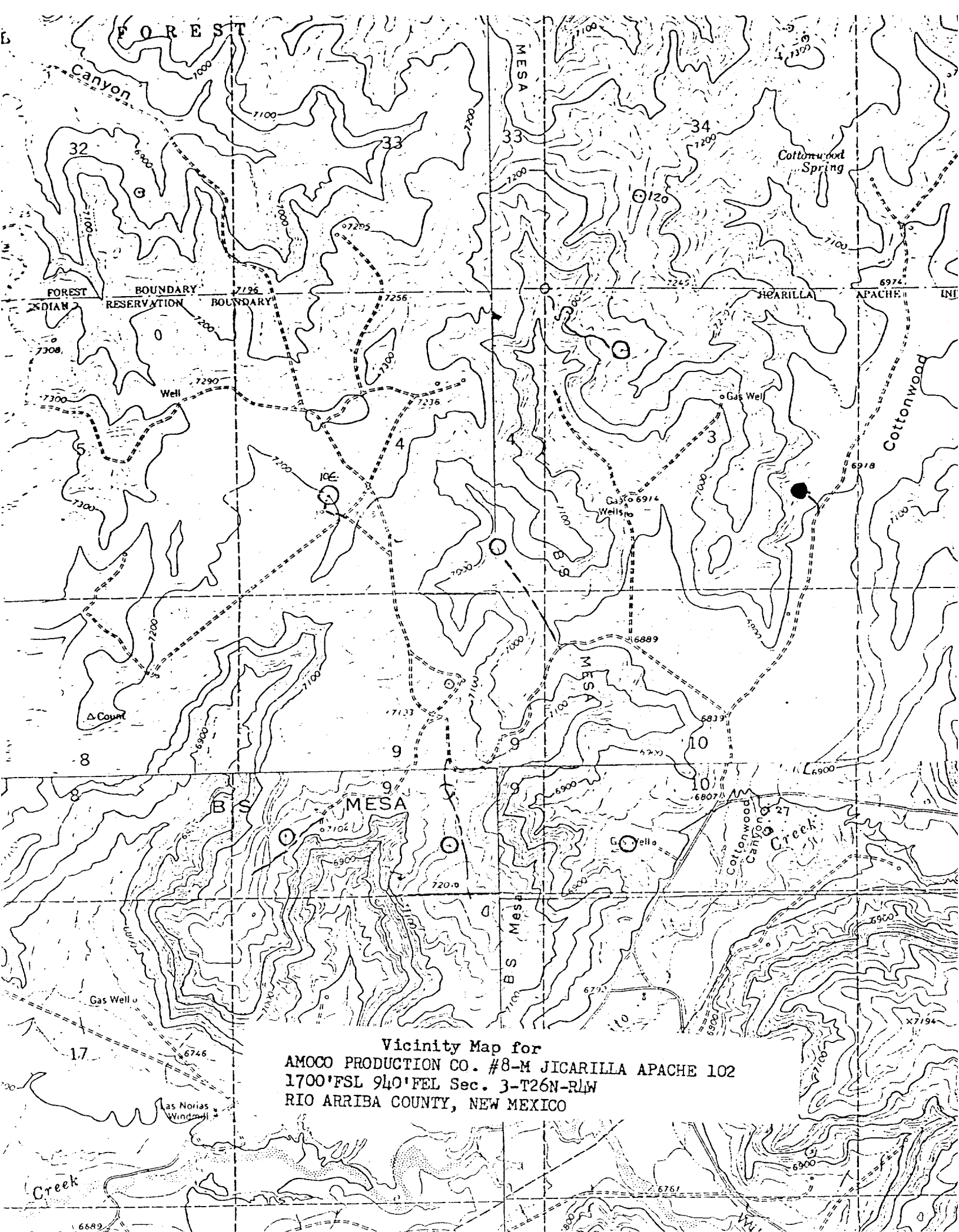
Representatives of the U. S. Geological Survey's Farmington Office and the Jicarilla Tribe's Dulce Office inspected the site with Amoco personnel. Cultural resources inspection was conducted by an archaeologist from Salmon Ruins.

12. Operator's Representative: R. W. Schroeder  
Phone: Office: 505-325-8841; Home: 505-325-6164  
Address: 501 Airport Drive, Farmington, NM 87401

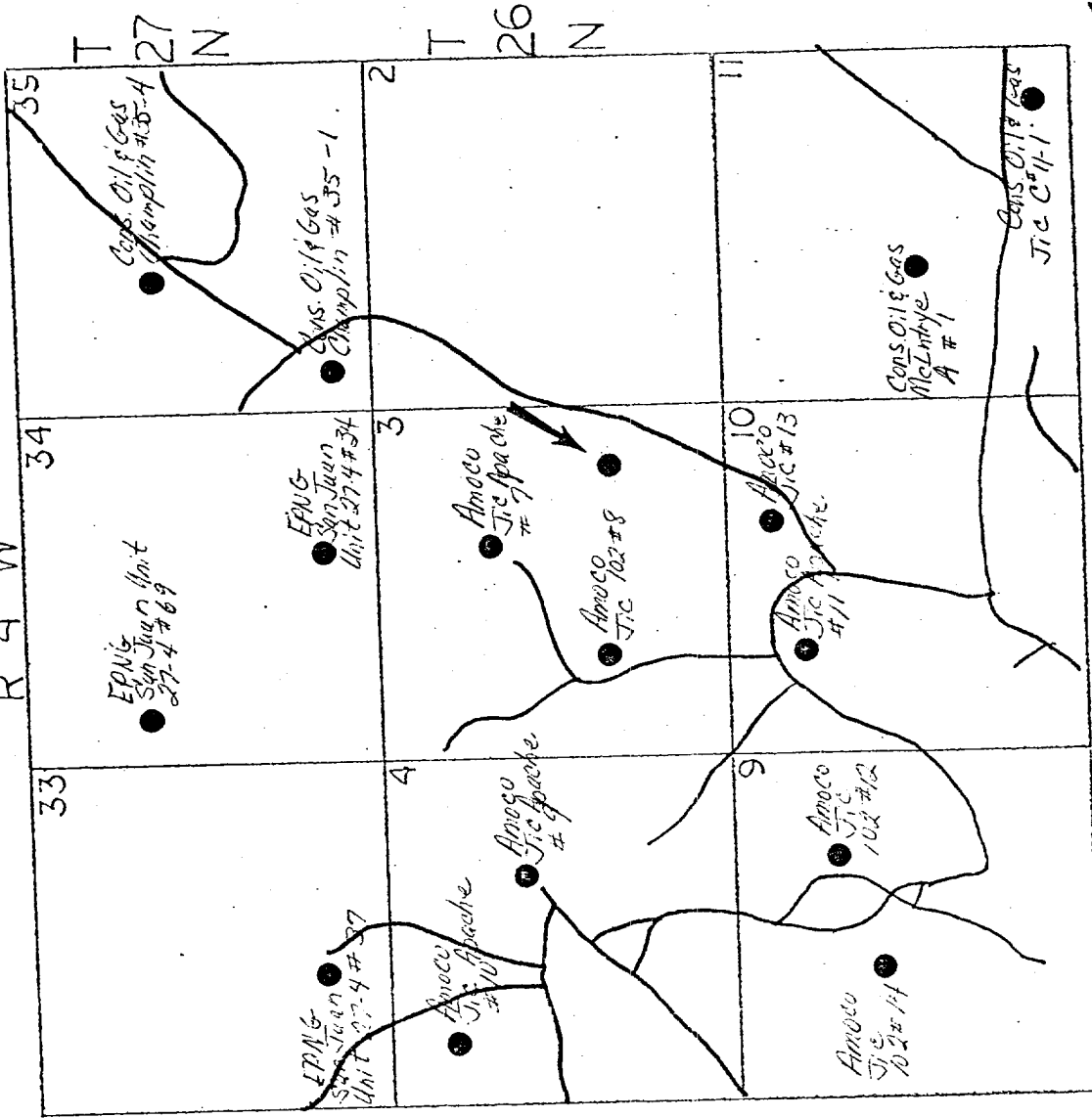
Certification: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by AMOCO PRODUCTION COMPANY and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Date May 13, 1980

  
R. W. Schroeder, District Superintendent

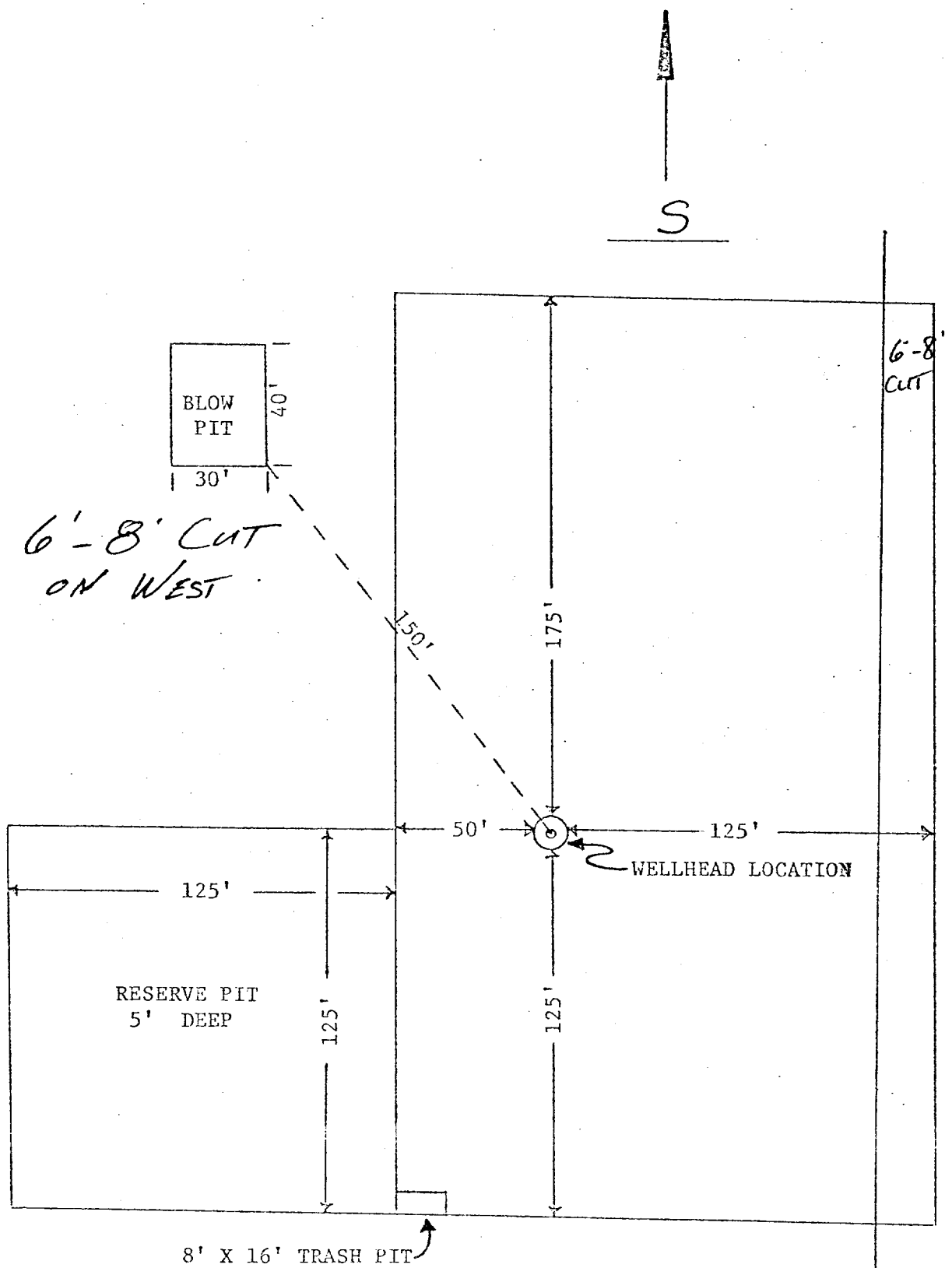


R 4 W



EXISTING DAKOTA WELLS • PROPOSED WELL LOCATION •

ROADS —



APPROXIMATELY 1.2 ACRES

Amoco Production Company		SCALE: 1"=50'
DRILLING LOCATION SPECIFICATIONS		
JICARILLA APACHE 102 #8M		DRG. NO.