

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK  
DRILL ☒ DEEPEN ☐ PLUG BACK ☐

2. TYPE OF WELL  
OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

3. NAME OF OPERATOR  
AMOCO PRODUCTION COMPANY

4. ADDRESS OF OPERATOR  
501 Airport Drive, Farmington, NM 87401

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
At surface 910' FSL and 1520' FWL, Section 14  
At proposed prod. zone Same

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
11.3 miles Southeast of Bloomfield, New Mexico

7. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 910'

8. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2550'

9. ELEVATIONS (Show whether DE, RT, CR, etc.) 6418' GL

10. NO. OF ACRES IN LEASE 2560

11. PROPOSED DEPTH 6958'

12. NO. OF ACRES ASSIGNED TO THIS WELL 320

13. ROTARY OR CABLE TOOLS Rotary

14. APPROX. DATE WORK WILL START\* As soon as permitted

PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT  |
|--------------|----------------|-----------------|---------------|---|
| 12-1/4"      | 8-5/8" (New)   | 24.0# K-55      | 300'          | 300 sx Class B x 2% CaCl2-Circ  |
| 7-7/8"       | 4-1/2" (New)   | 10.5# K-55      | 6958'         | 1st Stage- 410 sx CI B 50:50 Poz  |
|              |                |                 |               | 2nd Stage- 980 sx x 6% gel, 2# med tuf plug/sx, .8% FLA x 100 sx CI B Neat (Tail in) Circ |

This application to drill an infill Basin Dakota well is pursuant to Order No. R-1670-V approved by the NMOCB on May 22, 1979. This well will qualify under Section 103 of the Natural Gas Policy Act under Order No. R-1670-V.

DV Tool set at 4750'.

The gas from this well is dedicated to El Paso Natural Gas Co.

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.

15. Original Signed By W. J. Sims TITLE District Engineer DATE November 12, 1980

APPROVED  
AS AMENDED

APPROVED BY DEC 15 1980  
CONDITIONS OF APPROVAL James F. Sims  
DISTRICT ENGINEER

TITLE \_\_\_\_\_ DATE \_\_\_\_\_

oh 3~

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

|   |                                      |                        |                                    |                           |  |
|---|--------------------------------------|------------------------|------------------------------------|---------------------------|--|
| Operator<br><b>AMOCO PRODUCTION COMPANY</b>   |                                      |                        | Lease<br><b>MARTIN GAS CCM "F"</b> |                           | Well No.<br><b>1E</b>                  |
| Unit Letter<br><b>N</b>   | Section<br><b>14</b>                 | Township<br><b>27N</b> | Range<br><b>10W</b>                | County<br><b>San Juan</b> |  |
| Actual Footage Location of Well:<br><b>910</b> feet from the <b>South</b> line and <b>1520</b> feet from the <b>West</b> line |                                      |                        |                                    |                           |  |
| Ground Level Elev:<br><b>6418</b>   | Producing Formation<br><b>Dakota</b> |                        | Pool<br><b>Basin Dakota</b>        |                           | Dedicated Acreage:<br><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 Communitization

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.

|              |  |                          |
|--------------|--|--------------------------|
|              |  | <p>Amoco WI<br/>50 %</p> |
|              |  |                          |
| <p>Sec.</p>  |  | <p>14</p>                |
| <p>1520'</p> |  | <p>910'</p>              |

Scale: 1"=1000'

|  |                                 |
|--|---------------------------------|
| <p><b>CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>W. L. Peterson</i></p>  |                                 |
| Name   | <b>W. L. Peterson</b>           |
| Position   | <b>District Engineer</b>        |
| Company  | <b>Amoco Production Company</b> |
| Date   | <b>9-23-80</b>                  |
| <p>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.</p> |                                 |
| Date Surveyed  | <b>September 25, 1980</b>       |
| <p>Registered Professional Engineer and Land Surveyor</p> <p><i>Fred B. Kerr Jr.</i></p>   |                                 |
| Certificate No.  | <b>3950</b>                     |

SUPPLEMENTAL INFORMATION TO FORM 9-331C  
MARTIN GAS COM "F" NO. 1E  
910' FSL & 1520' FWL, SECTION 14-T27N-R10W  
SAN JUAN COUNTY, NEW MEXICO

The geologic name of the surface formation is the Tertiary Nacimiento.

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               | 1173'        | +5258'           |
| Kirtland                | 1475'        | +4956'           |
| Fruitland               | 2050'        | +4381'           |
| Pictured Cliffs         | 2277'        | +4154'           |
| Chacra (if present)     | 3369'        | +3062'           |
| Mesaverde [ Cliff House | 3795'        | +2636'           |
| [ Point Lookout         | 4480'        | +1951'           |
| Gallup                  | 5804'        | + 627'           |
| Dakota                  | 6679'        | - 248'           |
| TD                      | 6958'        | - 527'           |

Estimated KB elevation: 6431'

Drilling fluid to TD will be a fresh water, low solids non-dispersed mud system. Open hole logging program will include logs from TD to below surface casing:

SP-Dual Induction-GR

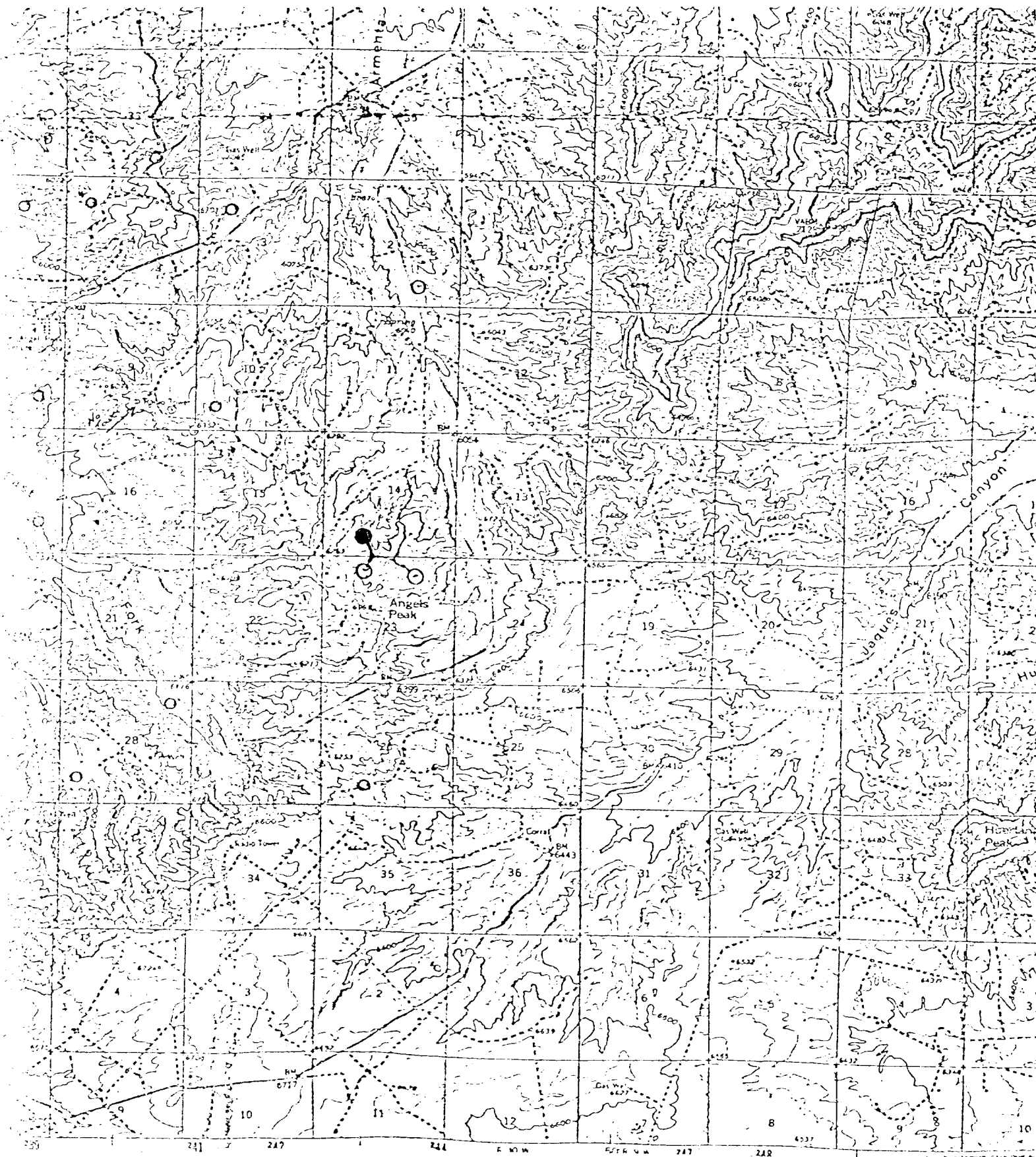
FDC-CNL-GR

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 3 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.



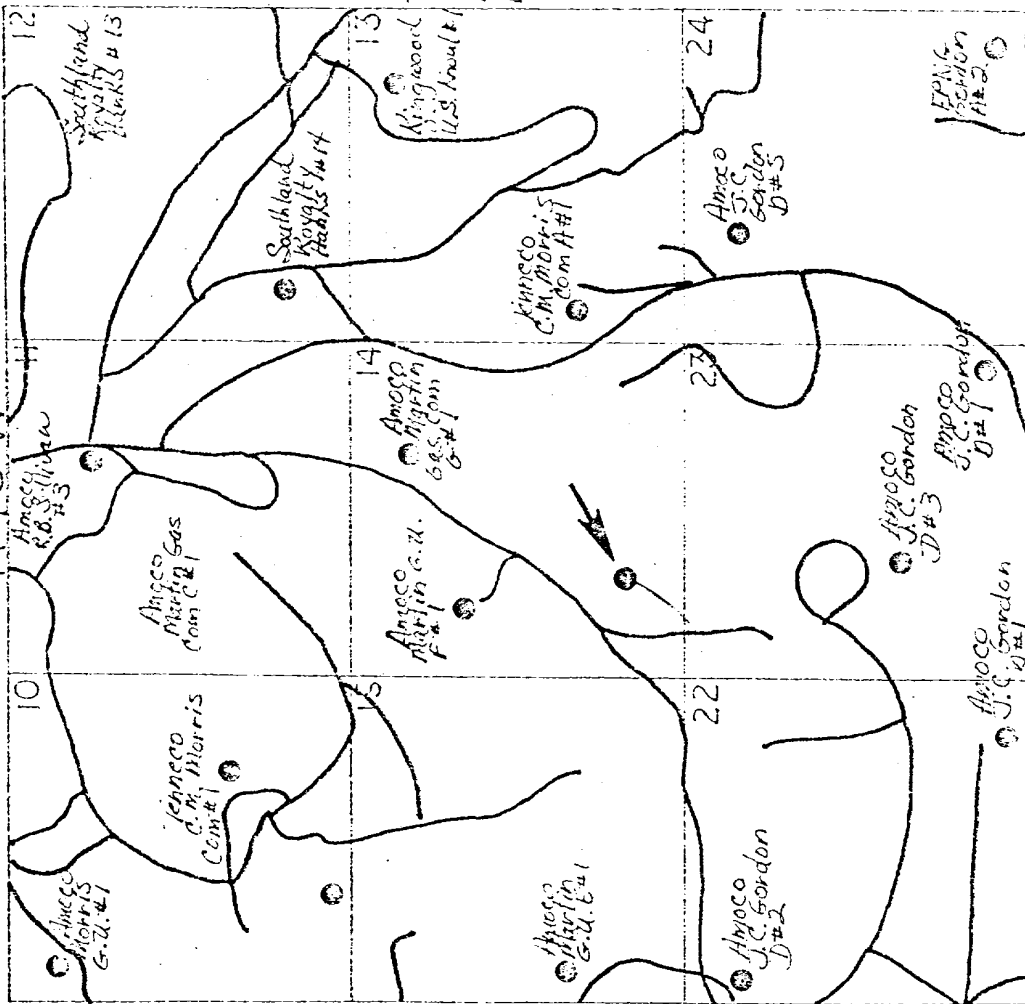
Vicinity Map for  
 AMOCO PRODUCTION CO. #1E MARTIN GAS COM "F"  
 910' FSL 1520' FWL Sec. 14-T27N-R10W  
 SAN JUAN COUNTY, NEW MEXICO

ROAD  
 Medium duty  
 Unimproved



MARTIN GAS CON F #1E

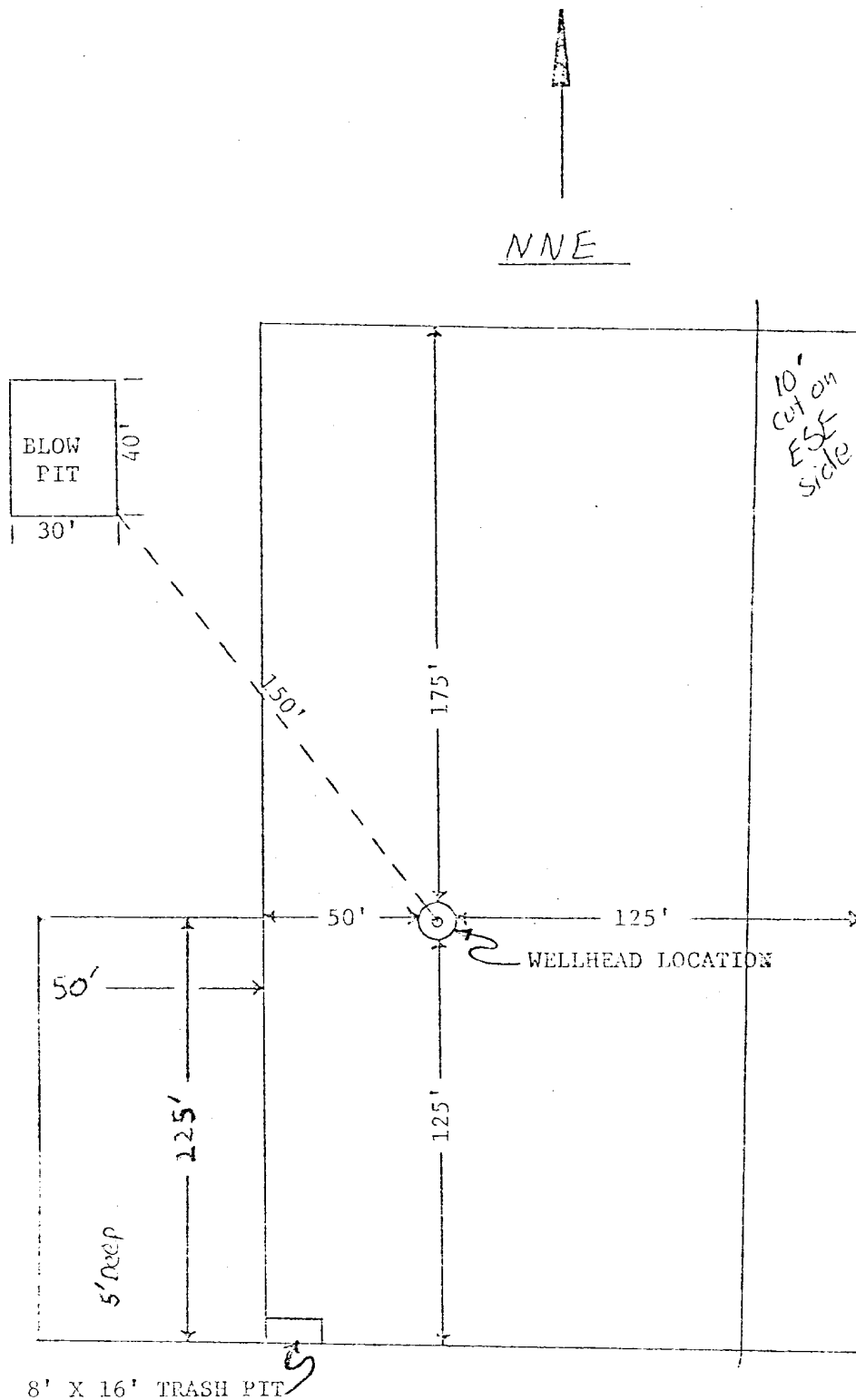
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EXISTING BASIN DAKOTA WELLS

PROPOSED WELL LOCATION

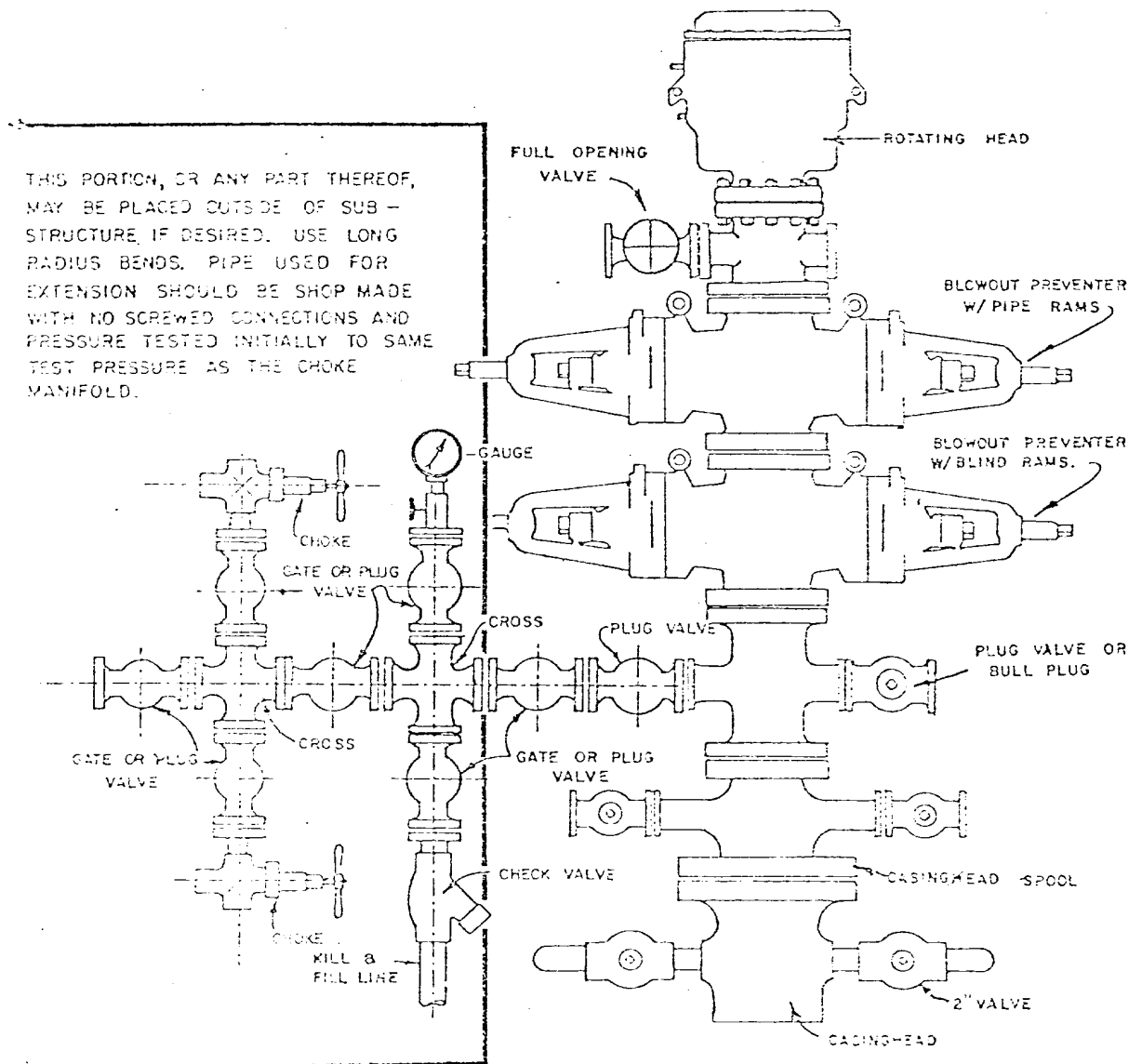
ROADS



APPROXIMATELY 1.2 ACRES

|  |               |
|--|---------------|
| Amoco Production Company                                 | SCALE: 1"=50' |
| DRILLING LOCATION SPECIFICATIONS<br>Martin Gas Com F #1E | DRG.<br>NO.   |

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

MARTIN GAS COM "F" NO. 1E  
910' FSL & 1520' FWL, Section 14, T27N, R10W  
San Juan County, New Mexico

1. The attached topographic map shows the proposed route to the location.
2. It will be necessary to build an access road approximately 2000' in length, and 20' wide.
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 Morris Gas Com "C" No. 1 (K-26-29-10)
5. Water will be hauled from the San Juan River.
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 10 foot cut will be made on the east-southeast 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 Land Management.
11. The general topography is an uneven terrain with a sandy loam soil. Vegetation consists of sage and native grasses.

Representatives of the U. S. Geological Survey's Farmington Office and the Bureau of Land Management inspected the site with Amoco Personnel. Cultural resources inspection was conducted by an archaeologist from San Juan College.

12. Operator's Representative: R. W. Schroeder  
Phone: Office: 505-325-3341; 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 PROTECTION COMPANY and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Date: 11/12/80

R. W. Schroeder  
R. W. Schroeder, District Superintendent