

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## 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. Jicarilla Contract 155
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Jicarilla Apache
2. NAME OF OPERATOR AMOCO PRODUCTION COMPANY		7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR 501 Airport Drive, Farmington, New Mexico 87401		8. FARM OR LEASE NAME Jicarilla Contract 155
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface H 1620' FNL x 880' FEL At proposed prod. zone		9. WELL NO. 31
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 17 miles southeast of Gobernador, New Mexico		10. FIELD AND POOL, OR WILDCAT Otero Chacra/So. Blanco Pictured Cliffs
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 880'		11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA SE/4 NE/4, Section 29 T26N R5W
16. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 636'		12. COUNTY OR PARISH Rio Arriba
17. NO. OF ACRES IN LEASE 2477.56		13. STATE NM
18. PROPOSED DEPTH 3903'		14. NO. OF ACRES ASSIGNED TO THIS WELL 160
19. ROTARY OR CABLE TOOLS Rotary		20. APPROX. DATE WORK WILL START* As soon as permitted
21. ELEVATIONS (Show whether DE, RT, GR, etc.) 6459' GL		

## 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'	315 sx Class B x 2% CaCl2-Circ
7-7/8"	5-1/2" (New)	9.5# K-55	3903'	Stage 1: 250 sx Class "B" Neat-Circ Stage 2: 435 sx Class "B" 50:50 poz, 6% gel, 2# med tuf plug/sx and 8% FLA. Tail in w/100 sx Cl B neat-circ

Amoco proposes to drill the above well to further develop the Otero Chacra reserves. The well will be drilled to the surface casing point using native mud. The well will then be drilled to TD with a low solids nondispersed mud system. Completion design will be based on open hole logs. A copy of all logs will be filed upon completion. Additional information required by NTL-6 for the application to drill and a surface use plan are attached.

DY Tool at 2975'

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

This action is subject to administrative  
appeal pursuant to 30 CFR 290.DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"

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.

Original Signed By W. L. Peterson		TITLE District Engineer	DATE DEC 23 1980
SIGNED			
(This space for Federal Government Use)			
PERMIT NO.		APPROVAL DATE	
APPROVED BY JAMES F. SIMS DISTRICT ENGINEER		TITLE	DATE

NMOCC

SUPPLEMENTAL INFORMATION TO FORM 9-331C

JICARILLA CONTRACT 155 NO. 31  
1620' FNL & 880' FEL, SECTION 29, T26N, R5W  
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	2250 '	4222 '
Kirtland	2450 '	4022 '
Fruitland	2645 '	3827 '
Pictured Cliffs	2825 '	3647 '
Chacra (if present)	3720 '	2752 '
Mesaverde	[ Cliff House [ Point Lookout	' '
Gallup	'	'
Dakota	'	'
TD	3903 '	2569 '

Estimated KB elevation: 6472 '

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:

DIL-SP-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.

## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-107  
Revised 10-1-78

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

Operator AMOCO PRODUCTION COMPANY		Lease JICARILLA CONTRACT 155		Well No. 31
Unit Letter H	Section 29	Township 26N	Range 5W	County Rio Arriba

Actual Footage Location of Well:

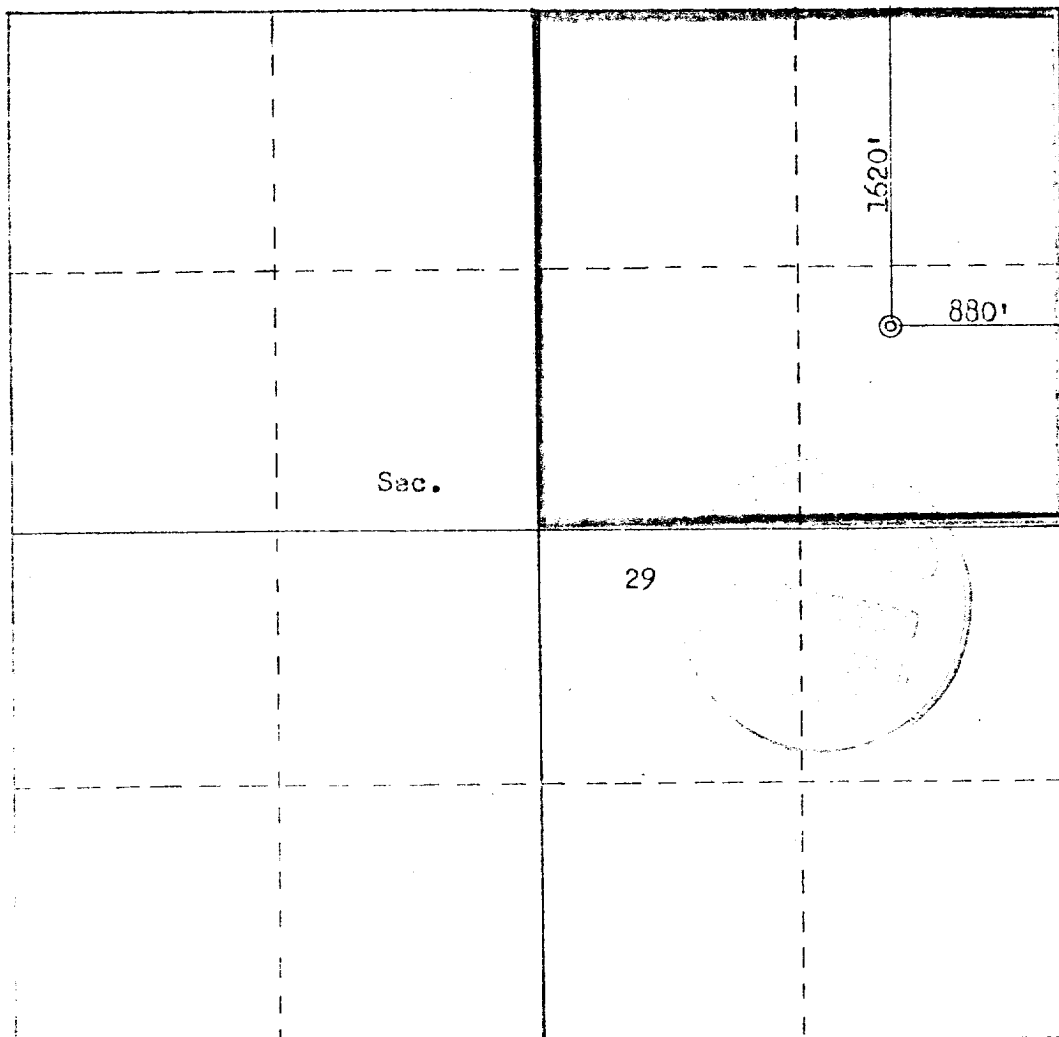
1620	feet from the North	line and	880	feet from the East	line
Ground Level Elev: 6459	Producing Formation Pictured Cliffs/Chacra	Pool So. Blanco Pictured Cliffs/ Otero Chacra	Dedicated Acreage: 160 Acres		

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.



Scale: 1"=1000'

## CERTIFICATION

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

*R. A. Downey*

Name  
R.A. DOWNEY

Position  
DISTRICT ENGINEER

Company  
AMOCO PRODUCTION COMPANY

Date  
SEPTEMBER 11, 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.

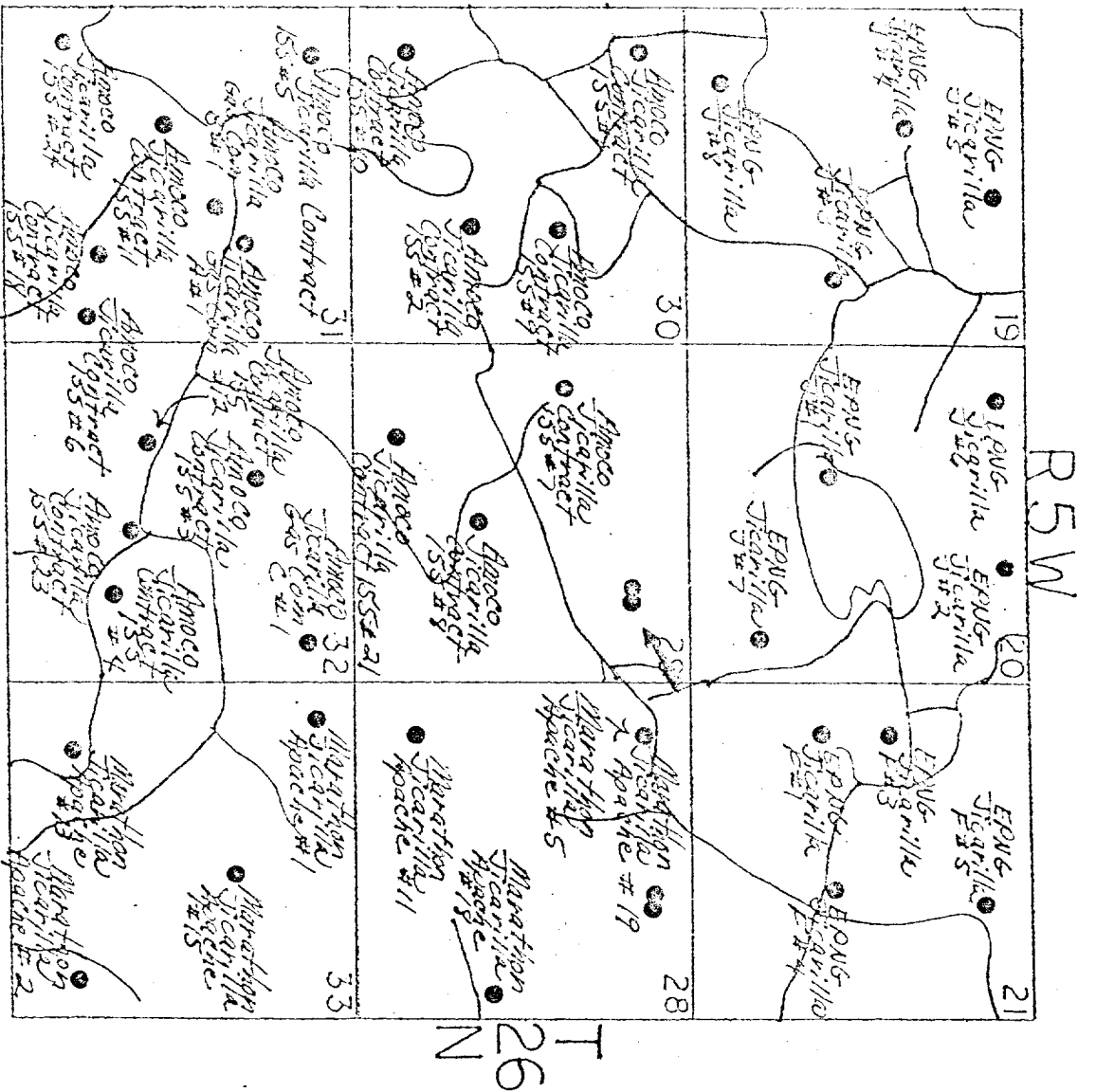
Date Surveyed  
July 29, 1980

Registered Professional Engineer  
and Land Surveyor

*Fred B. Kerr Jr.*  
Fred B. Kerr Jr.

Certificate No.  
3950





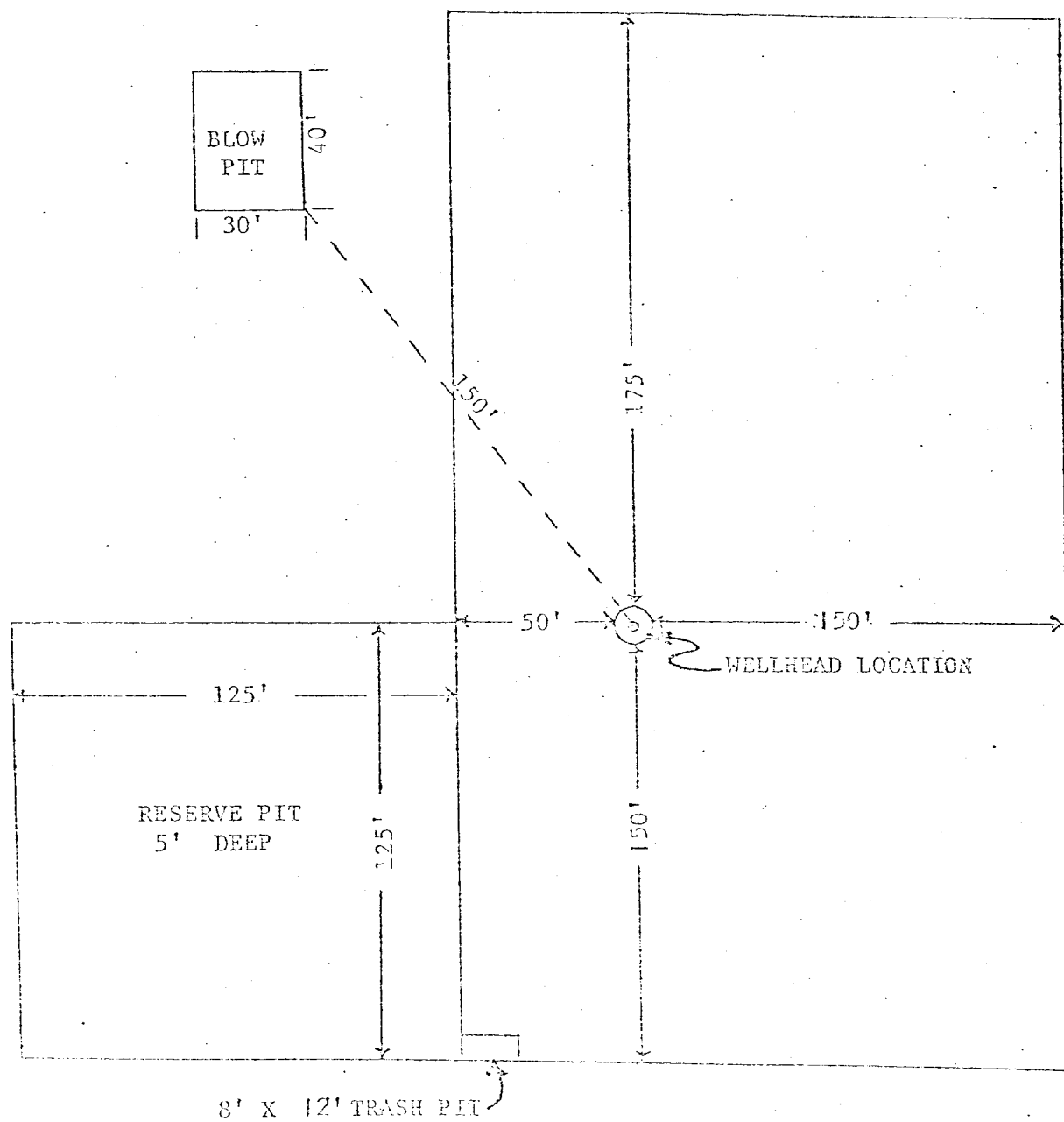
● EXISTING OTERO CHACRA WELLS

● EXISTING SO. BLANCO PICTURED CLIFFS WELLS

— ROADS

PROPOSED WELL LOCATION

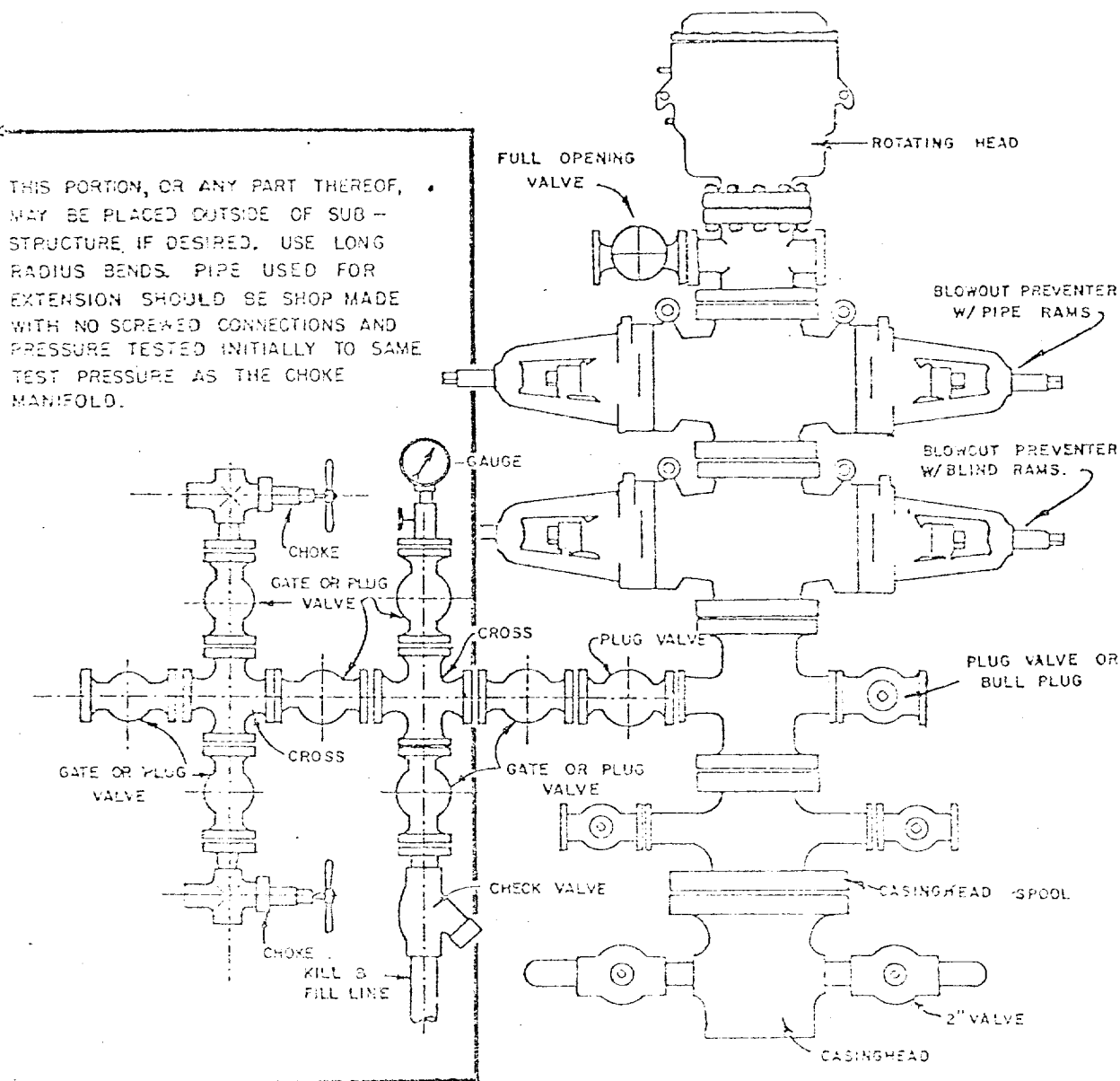




APPROXIMATELY 1.2 ACRES

Amoco Production Company	SCALE: 1"=50'
DRILLING LOCATION SPECIFICATIONS	
TICAPILLAS (Amoco) 158 Nov 81	DRG.

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 # 800

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 CONTRACT 155 NO. 31  
1620' FNL & 880' FEL SECTION 29, T26N, R5W  
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 Contract 155 No. 19 (A-29-26-5).
5. Water will be hauled from Tapacito Wash.
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. No cut is necessary.
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, Dulce.
11. The general topography is canyon bottom with southwesterly drainage and alluvial surface deposits, with a sandy clay loam soil. Vegetation consists of sagebrush, rabbit brush, and natural grasses.

Representatives of the U. S. Geological Survey's Farmington Office and the Bureau of Indian Affairs, Dulce, inspected the site with Amoco personnel. Cultural resources inspection was conducted by an archeologist from San Juan College.

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: November 13, 1980

  
R. W. Schroeder, District Superintendent