

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

(Other instructions on reverse side)

Budget Bureau No. 42-R1425.

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 ☐
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
1070' FNL and 1750' FWL, Section 4, T25N, R5W
At proposed prod. zone
Same

11. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
16-1/2 miles North Northeast of Counselor, New Mexico

15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)
1070'
19. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
143'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6601' GL

25. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH
12-1/4"	8-5/8" (New)	24# K-55	300'
7-7/8"	5-1/2" (New)	15.5# K-55	5315'

30-039-22523
5. LEASE DESIGNATION AND SERIAL NO.

Jicarilla Contract 146
6. IF INDIAN, ALLOTED OR TRIBE NAME

Jicarilla Apache
7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Jicarilla Contract 146

9. WELL NO.
37

10. FIELD AND POOL OR WILDCAT
Gonzales Mesaverde
Otero Chacra

11. SEC. T, R. M., OR BLK.
AND SURVEY OR AREA
NE/4, NW/4, Section 4,
T25N, R5W

12. COUNTY OR PARISH
Rio Arriba
13. STATE
New Mexico

17. NO. OF ACRES ASSIGNED TO THIS WELL
159.25 + 159.25 = 318.5
20. ROTARY OR CABLE TOOLS
Rotary

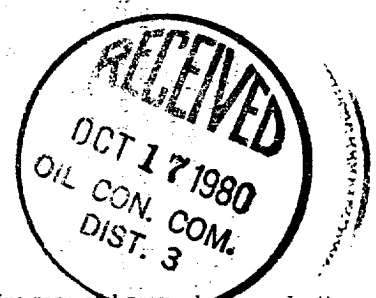
22. APPROX. DATE WORK WILL START*
As soon as permitted

Amoco proposes to drill the above dual well to further develop the Otero Chacra/Gonzales Mesaverde 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 multi-point surface use plan are attached.

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

Rec'd 10-8-80

Set DV tool at 3900'.



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.

26. SIGNED W. L. Pittman TITLE District Engineer DATE October 3, 1980
(This space for additional or other use)
APPROVED AS AMENDED
PERMIT NO. 100 APPROVAL DATE OCT 16 1980
APPROVED BY JAMES F. SIMS TITLE DISTRICT ENGINEER DATE
CONDITIONS OF APPROVAL, IF ANY:

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

P. O. BOX 2088

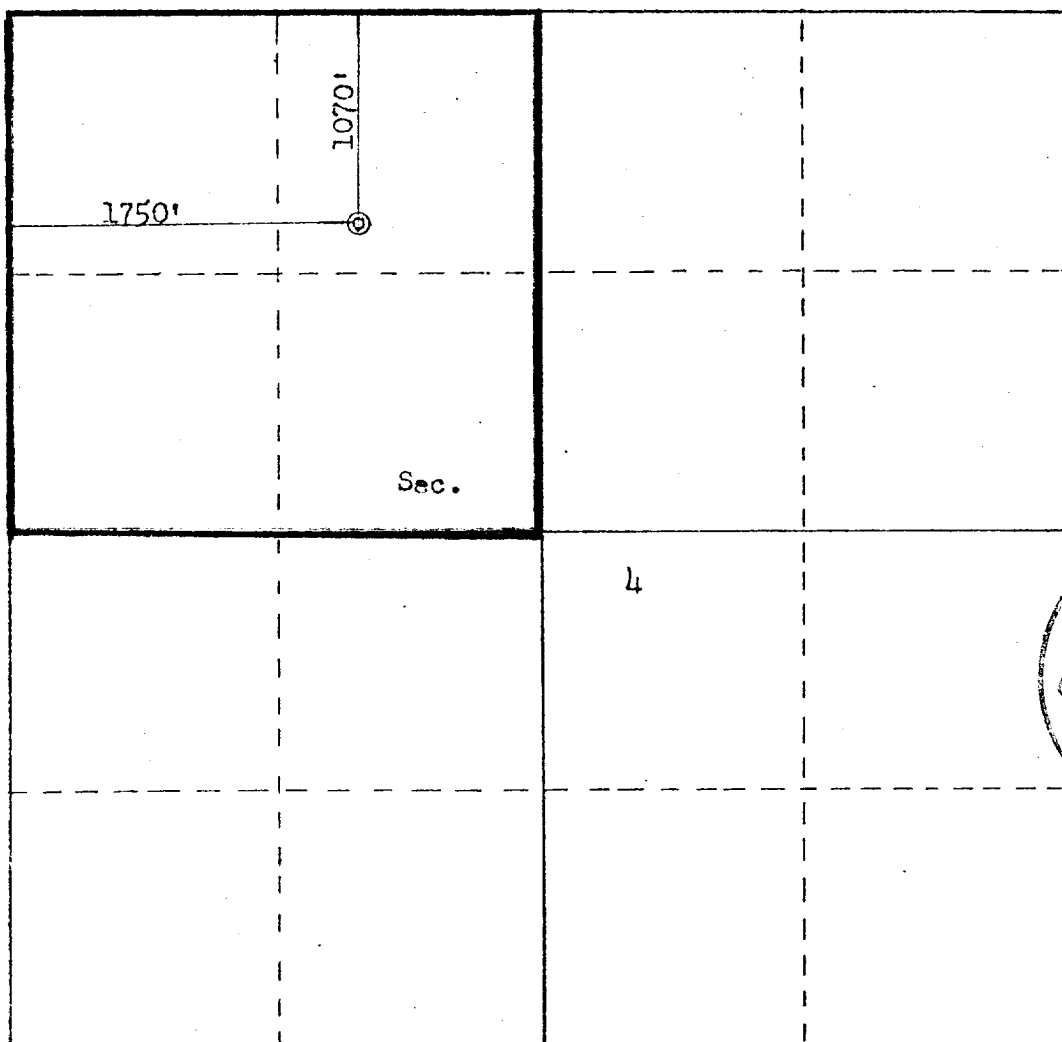
Form C-102
Revised 10-1-78

ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

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

Operator AMOCO PRODUCTION COMPANY		Lease JICARILLA CONTRACT 1146		Well No. 37
Unit Letter C	Section 4	Township 25N	Range 5W	County Rio Arriba
Actual Footage Location of Well: 1070 feet from the North line and 1750 feet from the West line				
Ground Level Elev: 6601	Producing Formation Chacra/ Mesaverde	Pool Otero Chacra/ Gonzales Mesaverde	Dedicated Acreage: 159.25 160 Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.</p> <p>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).</p> <p>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?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes," type of consolidation _____</p> <p>If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>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>				



Scale: 1"=1000'

CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name	R.A. Downey
Position	DISTRICT ENGINEER
Company	AMOCO PRODUCTION COMPANY
Date	SEPTEMBER 5, 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.	
Certificate No. 3950	

SUPPLEMENTAL INFORMATION TO FORM 9-331C

JICARILLA CONTRACT 146 NO. 37
1070' FNL & 1750' FWL, SECTION 4, T25N, 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	2297'	4317'
Kirtland	2483'	4131'
Fruitland	2743'	3873'
Pictured Cliffs	2855'	3761'
Chacra (if present)	3756'	2858'
Mesaverde [Cliff House	4541'	2705'
Point Lookout	4850'	1764'
Gallup	'	'
Dakota	'	'
TD	5315'	1299'

Estimated KB elevation: 6614'

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:

IND-SP-GR:	Surf-TD
FDC-CNL-GR:	Surf-TD
GR:	0-2000'

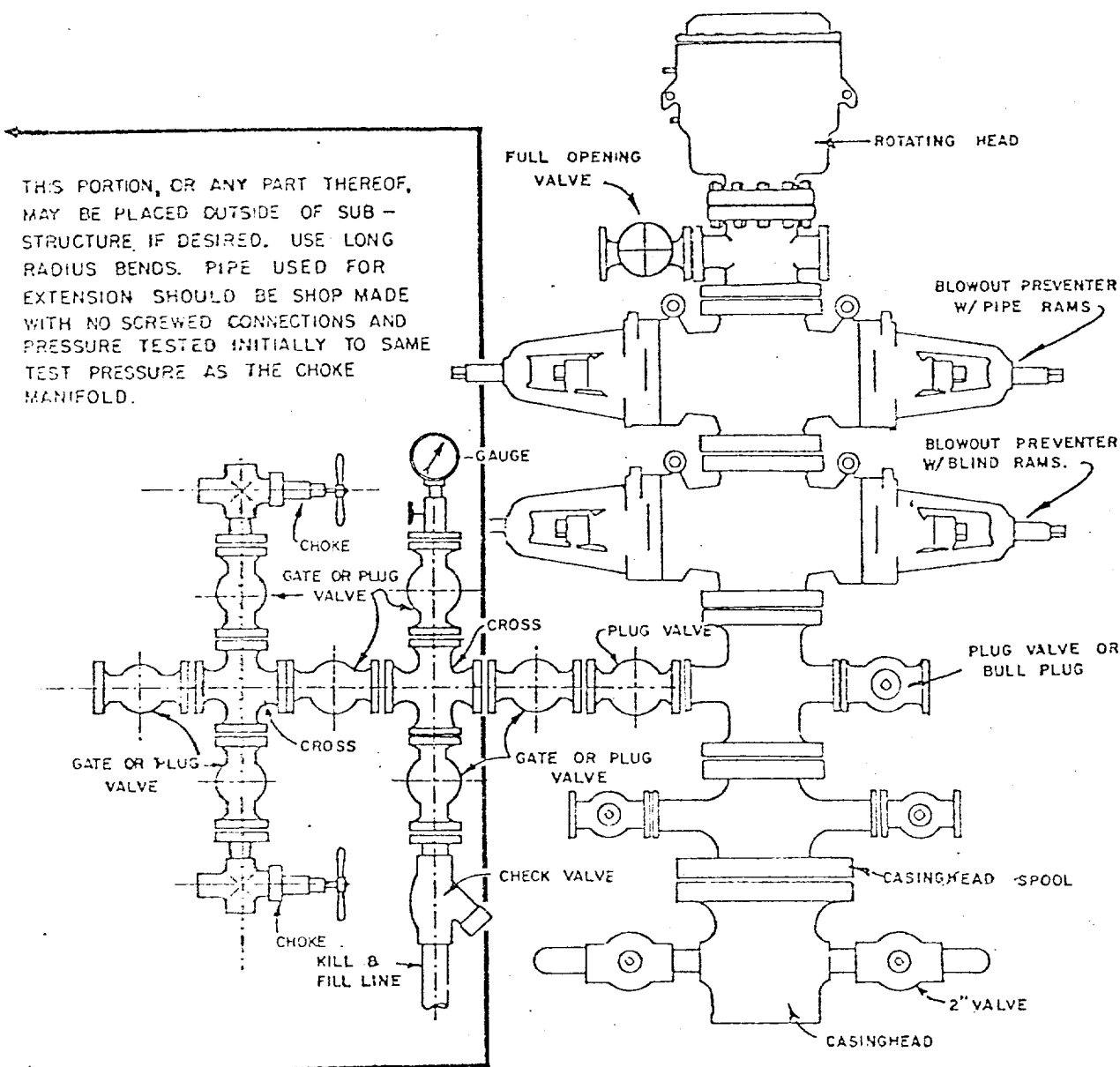
Completion design will be based on these logs. No cores or drill stem tests will be taken.

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.

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 CONTRACT 146 NO. 37
1070' FNL & 1750' FWL, SECTION 4, T25N, 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 146 Well No. 19, approximately one-half mile east.
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. A 3-foot cut will be made on northeast corner.
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 rolling slope with westerly drainage, with sandy clay loam soil; vegetation consists of sagebrush and galleta.

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 San Juan College.

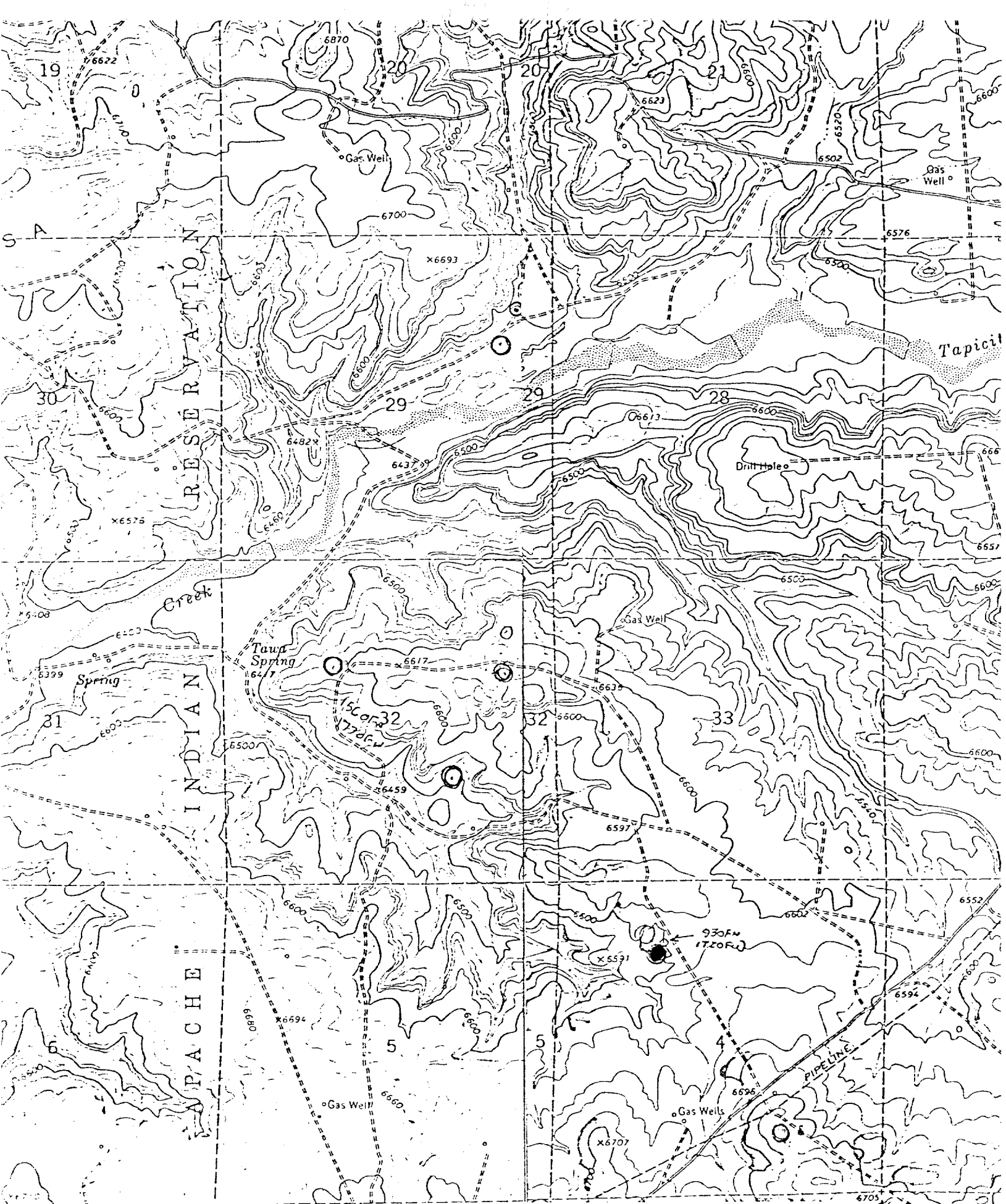
12. Operator's Representative: R. W. Schroeder
Phone: Office: 505-325-8841; Home: 505-325-6164
Address: 501 Airport Drive, Farmington, NM 87401

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.

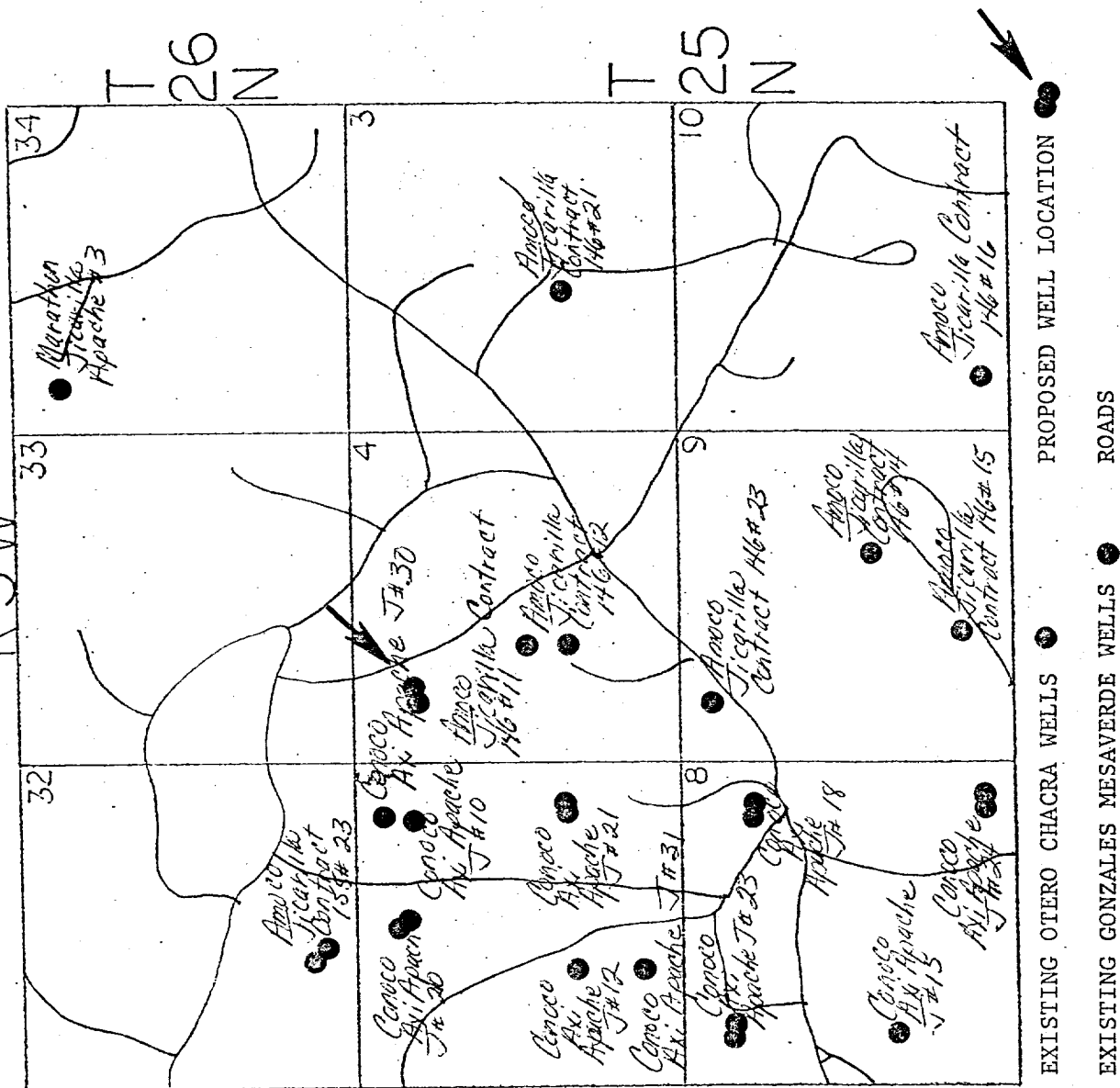
Date September 30, 1980

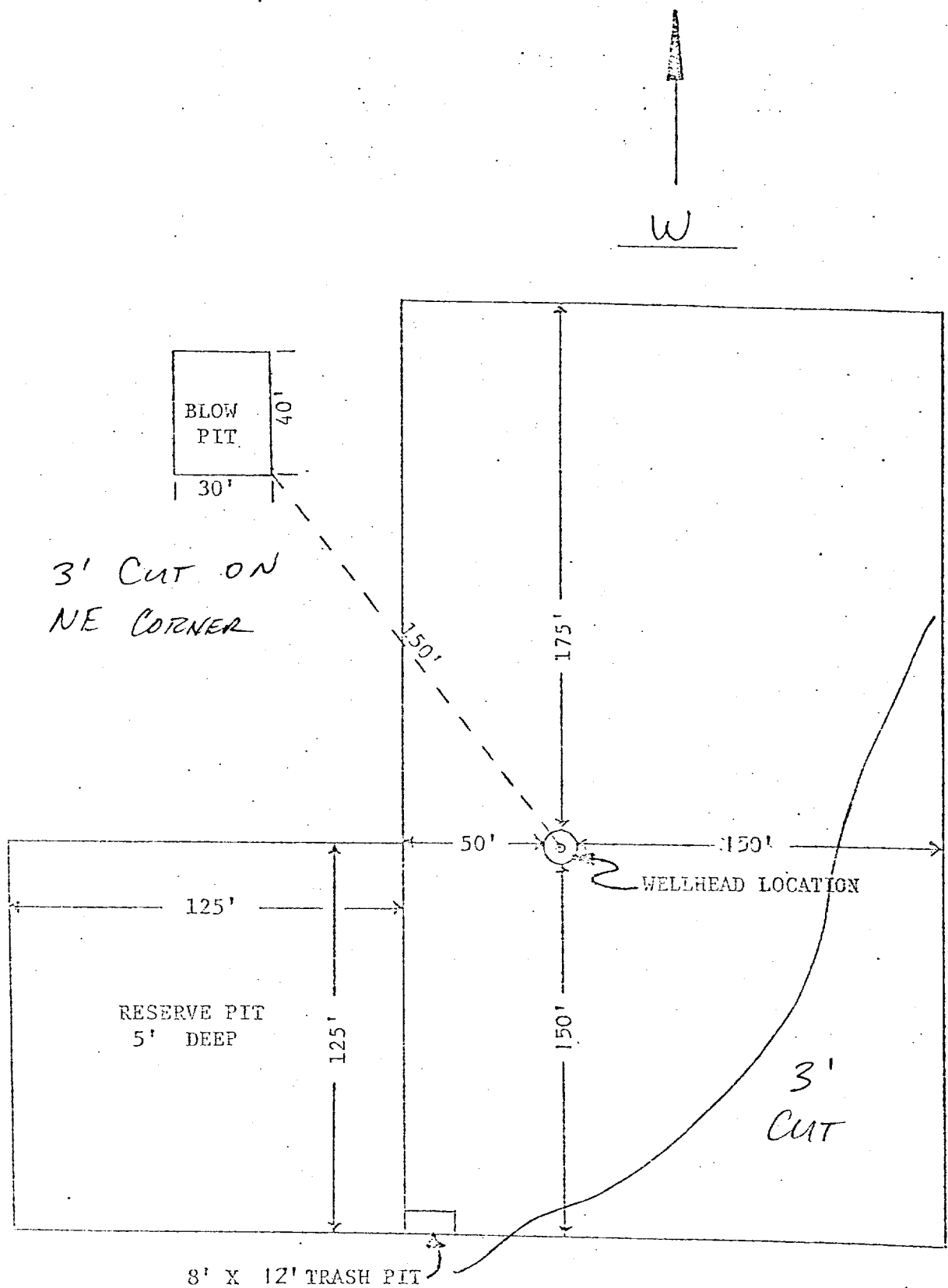


R. W. Schroeder, District Superintendent



Vicinity Map for
 AMOCO PRODUCTION CO. #37 JICARILLA CONTRACT 146
 1070'FNL 1750'FWL Sec. 4-T25N-R5W
 RTO ARriba COUNTY, NEW MEXICO





APPROXIMATELY 1.2 ACRES

Amoco Production Company		SCALE: 1"=50'
DRILLING LOCATION SPECIFICATIONS		
JICARILLA CONTRACT 146 #37		DRG. NO.