SUBMIT IN TRIPLICATE.

# Form approved. Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

(Other instructions on reverse side) 5. LEASE DESIGNATION AND SERIAL NO.

GEOLOGICAL SURV	ΞΥ	Jicarilla Contract 146
APPLICATION FOR PERMIT TO DRILL, I	DEEPEN, OR PLUG B.	ACK 6. IF INDIAN, ALLOTTER OR THEE NAME
DRILL [X] DEEPEN [	PLUG BAC	Jicarilla Apache   7. Unit AGREEMENT NAME
10. TYPE OF WELL  ONE WELL  OTHER  OTHER	SINGLE MULTIPL	S. FARM OR LEASE NAME
:: NAME OF GENEATOR  AMOCO PRODUCTION COMPANY		Jicarilla Contract 146
Anders of open your		32
501 Airport Drive, Farmington, New Met. Location of wall (Report location dearly and in accordance with Atlantace)		10. FIDED AND POOL, OR WILDCAT Otero Chacra/ Gonzales Mesaverde
1110' FNL and 810' FEL, Section 10, T. At proposed prod. zone	25N, <b>R</b> 5W / A / .	11. Sec., T., R., M., OR BEK. AND SURVEY OR AREA NE/4, NE/4, Section 10
Same 11. distance in miss and observes from nearest rown or pos-	P QSEICE*	T25N, R5W
15-1/2 miles North Northeast of Couns i. DISTANCE SHOW EDITIONS TO NEARSE		Rio Arriba New Maxico
PROPERTY OF BEAUTIES, FG. (Also to nearest drig, with flue, if any)	2557.20	160 //6 G
IS, DISTANCE FROM PROBABILIDED CONTROLS TO NAMESE WATE, DEBLEMEN, COMPLETED, 2841	19. PROPOSED DEPTH	20. ROTARY OR CABLE TOOLS
OR APPLIED FOR, ON THIS ITASE, FT. ZO4 '	5345'	Rotary 20. APPROX, DATE WORK WILL START*
66721 OL		As soon as permitted .
PROPOSED CASIN	G AND CEMENTING PROGRA	M
NIZE OF TROUE SIZE OF CASING WEIGHT FEE F		QI ANGIT COP CEMENT
	55 300' 55 5345'	315 sx Class "3" w/2% CaCl2-circ
7-1/8" 5-1/2" (New) 15.5# K-		Stage 1-335 sx Class "B" Neat-circ Stage 2-587 sx Class "B" 50:50 POZ
Called the second secon	The state of the s	6% get, 2% med tuf plug/sx, and
Among proposes to drill this dual wall the Olore Chacra/ Gonzales Mesaverde will be drilled to the surface casing po	reserves. The well	0.85 FLA. Tail in w/75 sx Class "B" Neat-circ.
mud. The well will then be drilled to T		DV Tool at 3884!
nondispensed mud system. Completion des		Run cement basket below DV Tool.
on open hate logs. A copy of all logs we completion. Additional information requ		
the application to drill and a multi-poi plan are attached.		RETERN
The gas from this well is dedicated to E	l Paso Natural Gas (	
·		SEP 2 1980 OIL CON. COM.  COM. COM.  COM. Some and proposed new predictive
		OIL CON = 1980
		PIST COM.
is above made one that theorems theorem; if proposed is to deep		ent (c lanter zone and proposed new predactive
over. If proposal is to drill or deepen directionally, give perfinent operator program, if any.	Cause on subsurges toxicions as:	newspred and her carling depths. Give blowsart
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SHINED A. Th. 1-SWUM 4	District Engine	page July 18, 1980
(This opace for Poderal or State office use)		
PERMIT NO.	APPROVAL DATE	
Breeze Warmed &		
CONSTRUCTOR OF APPROVAL, IN CONT.	LS	0AET
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## OIL CONSERVATION DIVISION

## STATE OF NEW MEXICO

## P. O. BOX 2088

Form C-102 Revised 10-1-78

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	ON COMPANY			JICARILLA CO	· · · · · · · · · · · · · · · · · · ·	<u>46</u>		• .
init Letter Section	í	ownship OCN		Range dr	County	,		
	10	25N		SW	Rio	Arriba		
ctual Footage Location o	37	~ + h		810		37 ±		
		rth	2:110 GIA		lest from the	East	line	
cound'Level Elev.	Producing Format	ion	Pco.				Dedicated Acreage:	
9914	Chacra			Otero Chacr	a		160	Acres
<ol> <li>Outline the acre</li> <li>If more than on interest and roy</li> <li>If more than one</li> </ol>	ne lease is de calty).	dicated to	the well, ou	tline each and	identify the	ownership th	hereof (both as to	
dated by community of this form if neces	nitization, unit  No If answ  o',' list the ow  essary.)  Il be assigned	ver is "yes ners and tr	ce-pooling. e  '' type of con  act descripti  until all inte	etc?  Insolidation  ons which have  Erests have bee	actually be	en consolidated (by com	ated. (Use reverse	e side of
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# SUPPLEMENTAL INFORMATION TO FORM 9-331C JICARILLA CONTRACT 146 NO. 32 1110' FNL & 810' FEL, SECTION 10, T25N, R5W RIO ARRIBA COUNTY, NEW MEXICO

The geologic name of the surface	formation	is	the	Tertiary San Jose
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Estimated tops of important geologic markers and potential water, oil, or gas bearing formations:

FORMATIO	<u>NO.</u>	DEPTH	ELEVATION
Ojo Alamo		2361 '	+4324
Kirtland		2521	+4164
Fruitland		2721 <b>'</b>	+3964
Pictured C	liffs	2891 '	+3794
Chacra (if	present)	3784 1	+2901
Mesaverde	Cliff House Point Lookout	4538 · 5045 ·	+2147 ' +1640 '
Gallup		•	1
Dakota		•	1
TD		5345	1340

Estimated KB elevation: 6685

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 FDC-CNL-GR

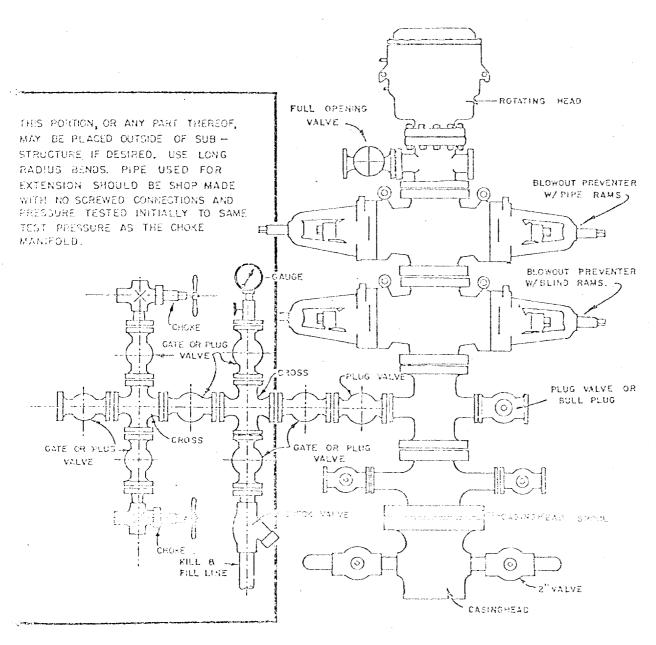
Completion design will be based on these logs. No cores or drill stem tests will be taken.

Operations will commence when permitted and last approximately  $\frac{3}{2}$  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 16,1989

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. 32 1110' FNL & 810' FEL, SECTION 10, T25N, R5W RID ARRIBA COUNTY, NEW MEXICO

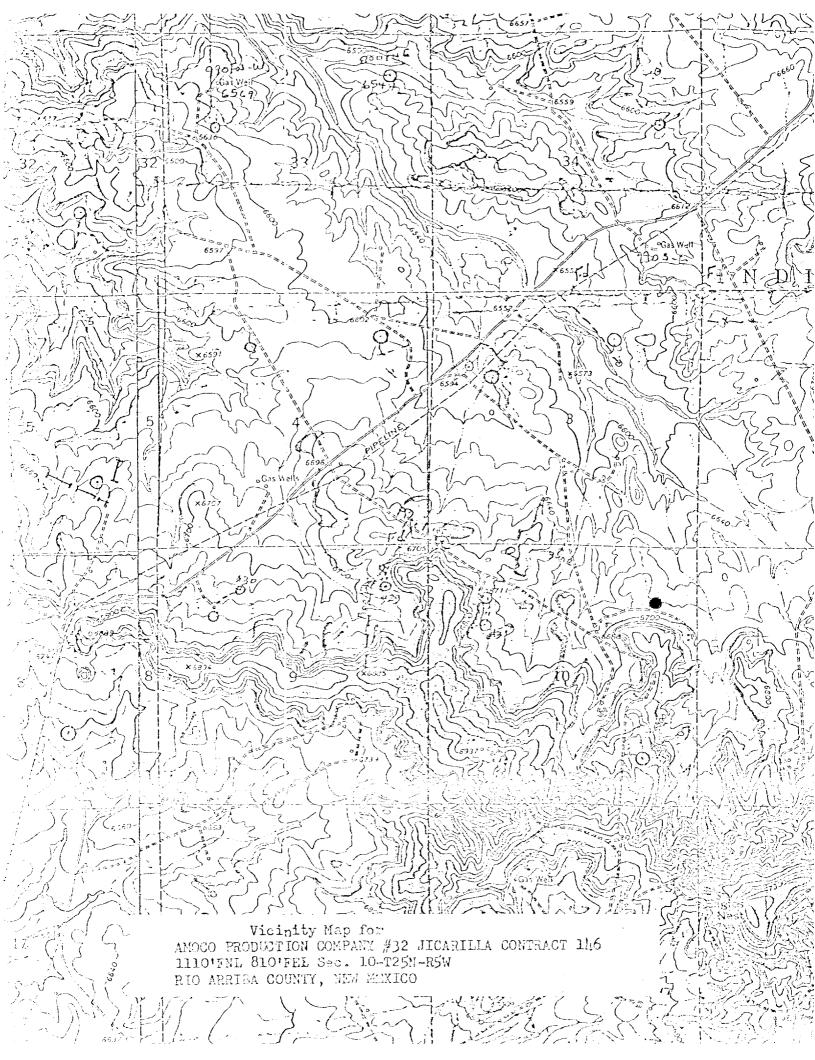
- The attached topographic map shows the proposed route to the location.
- 2. It will not be necessary to build any access road.
- Existing oil and gas wells within a one-mile radius of our proposed wall have been spotted on the lease road map.
- There is a 380-barrel tank and facilities located at Jicarilla Contract 146 Well No. 22, approximately 250 feet north.
- 5. Water will be hauled from Tapacito water holes.
- 6. In 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 wall site layout, reserve, burn and trash pits are shown on the attached Drill Site Specification Sheet. A 4-foot cut will be made on southwest side.
- Restoration of the surface will be accomplished by cleaning up and leveling upon completion of the well. Reseading of the site will be carried out as instructed by the Burgau of Indian Affairs.
- II. The general topograph, is a sloping area with sandy loam type soil; vegetation consists of sagebrush, native grasses and juniper trees.

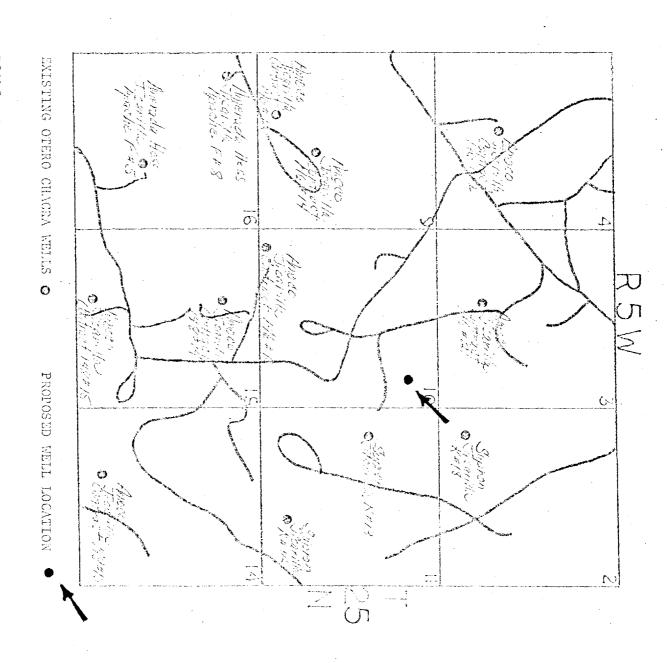
Representatives of the U. S. Geological Survey's Farmington Office and the Jicarilla Tribe's Dulce Office inspected the site with Amoco personnel. Cultural resources inspection was conducted by an archaeologist from San Juan College.

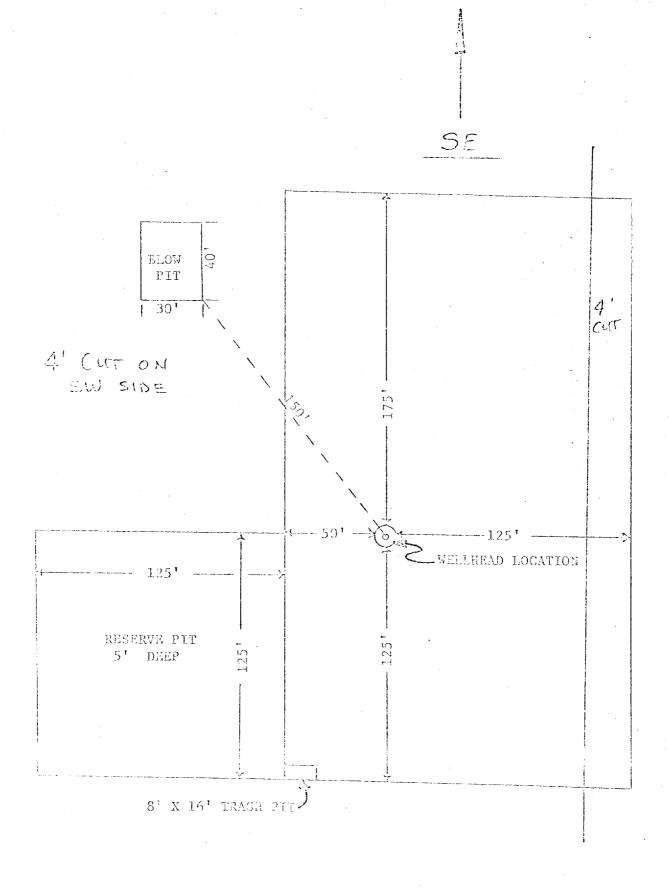
12. Operator's Representative: R. W. Schroeder

Phone: Office: 505-325-8841; Home: 505-325-6164 Address: 501 Airport Drive, Farmington, NM 87401

Corrification: I hereby cartify 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 







APPROXIMATELY 1.2 ACRES

Arnoco Production Company	SCALE: L'=50'
DRILLING LOCATION SPECIFICATIONS	
JEARILLA CONTROLT 146 No. 32	985. 149.