SUBMIT IN TRIPLICATE*

(Other instructions on reverse side)

Form approved. Budget Bureau No. 42-R1425. 30-039-22170

UNITED STATES

DEPARTMENT OF THE INTERIOR						5. LEASE DESIGNATION AND SERIAL NO.		
	GEOLO	GICAL SURV	EY		9	licarilla Contract 146		
APPLICATION	V FOR PERMIT	TO DRILL, I	DEEPI	N, OR PLUG	BACK	G. IF INDIAN, ALLOTTEE OF TEIBE NAME		
1a. TYPE OF WORK		DEEDEN		DI II C. D.		Jicarilla Apache		
	ILL 🛛	DEEPEN		PLUG BA	ACK 🗀	. Coll Adda Man I Man		
b. TYPE OF WELL	AR OTHER	InfIII		NGLE MULT	TIPLE	8. FARM OR LEASE NAME		
2. NAME OF OPERATOR	ELL IZI OTHER	111,111	Z(NE LA ZONE		Jicarilla Contract 146		
AMOCO PRODUC	TION COMPANY					9. WELL NO.		
3. ADDRESS OF OPERATOR	7.01. 001.1.111					17E -		
501 Airport (Drive, Farmingt	on. New Mex	cico	87 40 1		10. FIELD AND POOL, OR WILDCAT		
4. LOCATION OF WELL (R	eport location clearly an	d in accordance wi	th any S	tate requirements.*)	··	Basin Dakota		
660' FSL and 10	660' FEL. Secti	on 3, T25N.	R5W			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA		
At proposed prod. zon	•	, ,			• •	NW/4, SE/4, Section 3,		
	Same				•	T25N, R5W		
14. DISTANCE IN MILES	AND DIRECTION FROM NEA	REST TOWN OR POS	T OFFICE	•		12. COUNTY OR PARISH 13. STATE		
	theast of Couns	elors, New				Rio Arriba New Mexico		
15. DISTANCE FROM PROPO LOCATION TO NEARES!	r		16. NO	. OF ACRES IN LEASE		OF ACRES ASSIGNED HIS WELL /		
PROPERTY OR LEASE I (Also to nearest dr)		I660'	:	2557		E/319.25		
18. DISTANCE FROM PROF TO NEAREST WELL, D		· · · · · · · · · · · · · · · · · · ·	19. PR	OPOSED DEPTH	20. вота	RY OR CABLE TOOLS		
OR APPLIED FOR, ON TH	IS LEASE, FT.	T5001	'	7475'		Rotary		
21. ELEVATIONS (Show wh	ether DF, RT, GR, etc.)					22. APPROX. DATE WORK WILL START*		
6606	GL		·	·		As soon as permitted		
23.		PROPOSED CASI	NG ANI	CEMENTING PROG	RAM			
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER F	00 T	SETTING DEPTH	<u> </u>	QUANTITY OF CEMENT		
12-1/4"	8-5/8" (NEW)	24 # K-	-55	3001	315	sx. Class "B" Neat		
7-7/8"	4-1/2" (NEW)	II.6# N-	-80	7475 '	1700	sx. Class "B" 50:50 Poz		
	1	1			ļ			
approved by the Natural Gas Pol	NMOCC on May 2 icy Act under C epartment of in	2, 1979. Torder No. R- terior Rati	his 1670 fica	well will qual -V. Attached tion letter of	ify under	to Order No. R-I670-V er Section 103 of the copy of subject order , 1979. Gas from this		
Creage 15 dedit	caled to NOTHIM	esi ripelii	16 (0)	por ar ton.		*		
						RECEIVED		
						SEP 2 4 1979		
					. \ 0	DIL CON. COM.		
					\	DIST. 3		
						uctive zone and proposed new productive d and true vertical depths. Give blowout		
preventer program, if an		, bric permen		- Januariace Iventions	measure	- I I I I I I I I I I I I I I I I I I I		
signed B. E.	Fackerell	TI	rle <u>Di</u>	strict Enginee	er	DATE September 17, 19		
(This space for Fede	ral or State office use)							
PERMIT NO.				APPROVAL DATE				

oh Fruh

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY _

SEP 21 1979

U. S. GEOLOGICAL SURVEY DURANGO, COLO.

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO IERGY AND MINERALS DEPARTMENT

P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

Form C-102 kevised 10-1-78

		All distances must be from	n the cuter boundarie	s of the Section.		
Operator			Lease			Well No.
AMOCO PRODUC	TION COMPANY		JICARILLA (CONTRACT 146		17E ~
Unit Letter	Section	Township	Ronge	County		
	3	25N	5W	Rio	Arriba	
Actual Footage Locat 1660	c	outh line and	1660		Toot	
Ground Level Elev.	Producing Form		Pool	feet from the	East	line dicated Acreage;
6606	Dakota	action	Basin Dakot	ta .		
			L			319.25 Acres
 If more that interest and If more than 	n one lease is royalty).		l, outline each an	d identify the o	wnership there	eof (both as to working
If answer is this form if	No If an "no," list the onecessary.)	swer is "yes," type of the swers and tract descent	of consolidation _ criptions which ha l interests have b	een consolidate	d (by commu	d. (Use reverse side of nitization, unitization, proved by the Commis-
sion.					•	. ,
	!				С	ERTIFICATION
	 		i i i i		tained herein	ify that the information con- is true and complete to the nowledge and belief.
<u> </u>	-+				Norme B.E.	Fackrell
	1		⊙ 		Position Distr	ict Engineer
	[Company AMOCO	PRODUCTION CO.
	l Se	c.	18-4-	.127 470		t 27, 1979
	 	3	S 1 160	501	shown on this notes of act under my sup	rtify that the well location s plat was plotted from field ual surveys made by me or pervision, and that the same correct to the best of my and belief.
			1660'		August Sent Production of the Surveyed B. Certificate No.	Land State of La
0 330 660 9	0 1320 1650 198	0 2310 2640 200	0 1500 1000	50Q O	3950	

SUPPLEMENTAL INFORMATION TO FORM 9-331C JICARILLA CONTRACT 146 NO. 17E 1660' FSL & 1660' FEL, SECTION 3, T25N, R5W RIO ARRIBA COUNTY, NEW MEXICO

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

Estimated tops of important potential hydrocarbon bearing formations:

FORMATION	<u>DEPTH</u>	ELEVATION
Dakota	6994'	- 375'
Gallup	6319'	+ 300'
Mesaverde	4519'	+ 2100
Chacra	3744'	+ 2875
Pictured Cliffs	2864'	+ 3755'
TD	74751	- 856'

Estimated KB elevation: 6619'.

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

Induction Electric - SP

Compensated Density ∅ - Gamma Ray

Compensated Neutron Ø - Gamma Ray

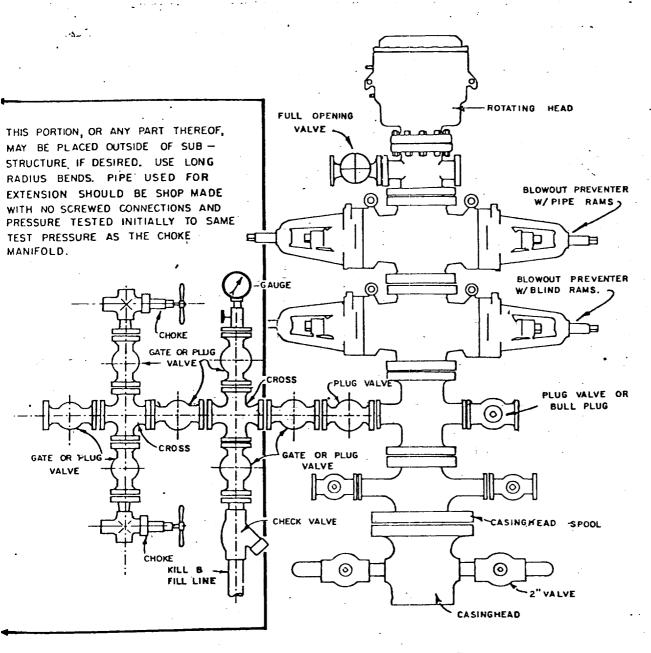
Gamma Ray (Separate Log) 5" Scale

2000' - Surface

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 three weeks.

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



BLOWOUT PREVENTER HOOKUP

EXHIBIT D-4
OCTOBER 16,1969

MULTI-POINT SURFACE USE PLAN

JICARILLA CONTRACT 146 NO. 17E 1660' FSL & 1660' FEL, SECTION 3, T25N, R5W R1O 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 new road.
- 3. Existing oil and gas wells within a one-mile radius of our proposed well have been spotted on the vicinity map.
- 4. There is a 380-barrel tank and facilities located at well indicated on the topo map.
- 5. Water will be hauled from Tapacito water hole.
- 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.
- 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 north side.
- 10. Restoration of the surface will be accomplished by cleaning up and leveling upon completion of the well. Drilling mud will be hauled away and the reserve pit back filled. Reseeding of the site will be carried out as instructed by the Bureau of Indian Affairs.
- II. The general topography is a sandy loam-type soil with vegetation of sagebrush.

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

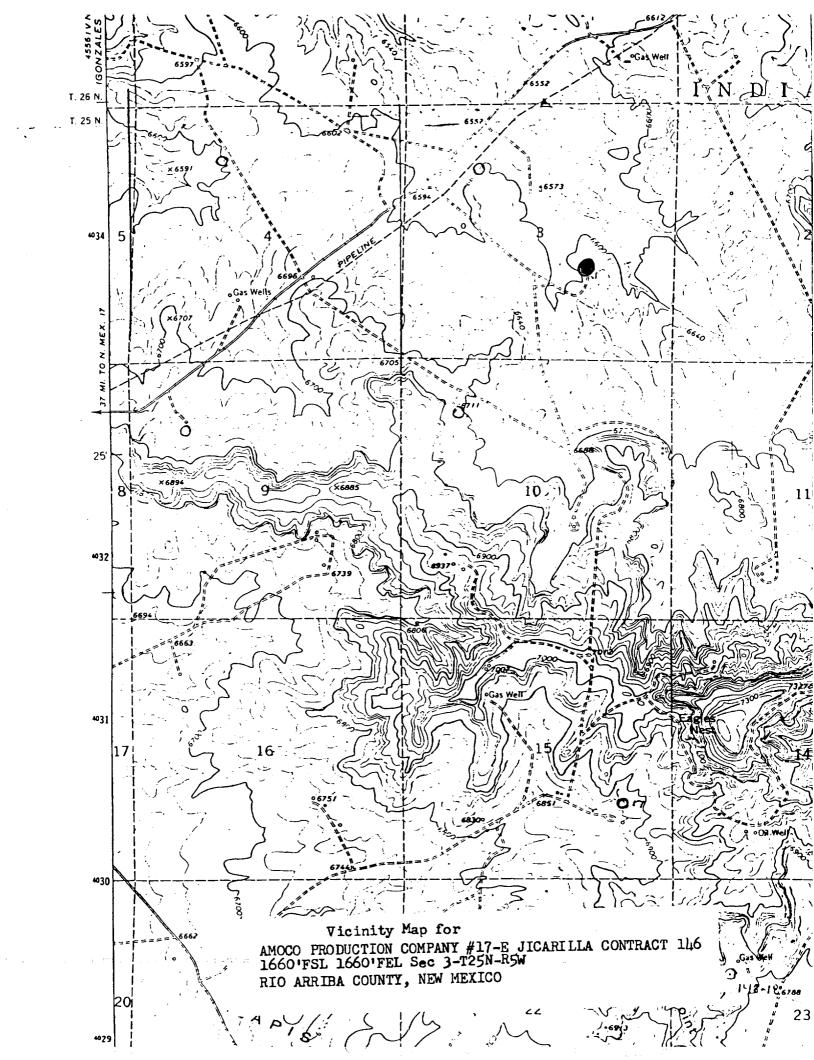
12. Operator's Representative: R. W. Schroeder

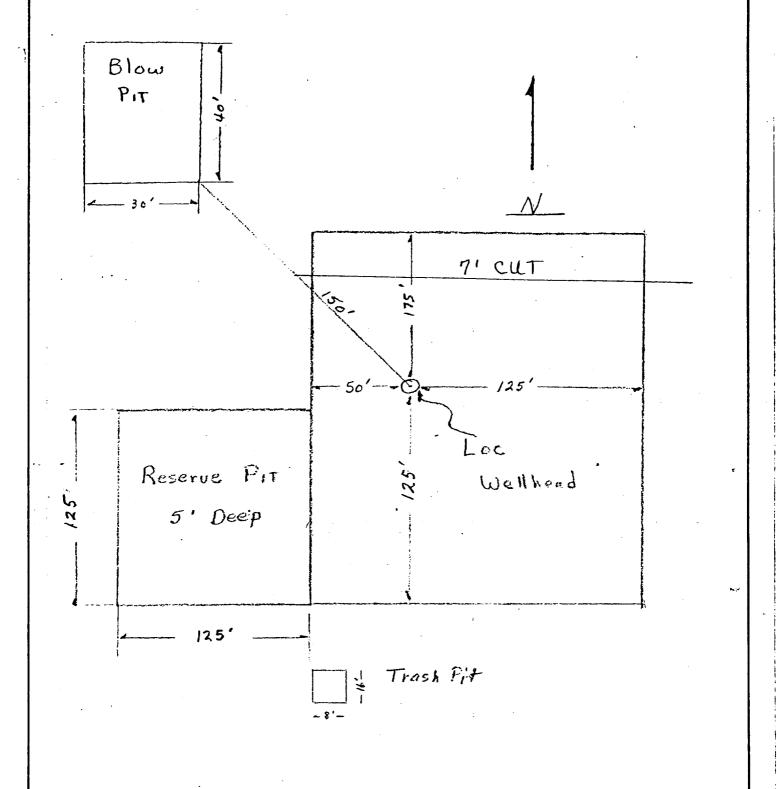
Phone: Office: 505-325-8841; Home: 505-325-6164 Address: 501 Airport Drive, Farmington, NM 87401

<u>Certification</u>: 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 <u>AMOCO PRODUCTION COMPANY</u> and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Date September 17, 1979

R. W. Schroeder, District Superintendent





Approximately 1.2 Acres

Amoco Production Company	SCALE: NONE
Drilling LOCATION Specs. JICARILLA CONTRACT 146 NO. 17E	DRG. NO.

EORM 422 2.74