SUBMIT IN TRIPLICATE*

Form approved. Budget Bureau No. 42-R1425.

(Other instructions on reverse side)

Dauget Duteau 110.	42-R1425.
30-039-	21632
5. LEASE DESIGNATION AND S	ERIAL NO.

HUDANGO, COLO.

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY				SF 078503-A			
APPLICATION	V FOR PERMIT	TO DRILL, DEEL	PEN, OR PLUG E	BACK	6. IF INDIAN, ALLOTTEE OR TRIBE NAME		
1a. TYPE OF WORK					7. UNIT AGREEMENT NAME		
DRILL M DEEPEN D PLUG BACK D			San Juan 29-7 Unit				
	AS X OTHER		SINGLE MULTIF	LE	8. FARM OR LEASE NAME		
2. NAME OF OPERATOR	ELL CITER		NORE CO.		San Juan 29-7 Unit		
El Paso N	atural Gas C	ompany			9. WELL NO.		
3. ADDRESS OF OPERATOR					78A		
		n, NM 87401			10. FIELD AND POOL, OR WILDCAT		
4. LOCATION OF WELL (R At surface /	eport location clearly and 820 N, 11		State requirements.*)		Blanco Mesa Verde		
	020 N, 11	00 W -			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA CO. O. O. O. N. D. 7. L.		
At proposed prod. zon	ıe				Sec.30,T-29-N,R-7-W		
14. DISTANCE IN MILES	AND DIRECTION FROM NEA	REST TOWN OR POST OFF	CE*		12. COUNTY OR PARISH 13. STATE		
8 miles S	E of Abe's S	tore, NM			Rio Arriba NM		
15. DISTANCE FROM PROPO LOCATION TO NEAREST	OSED*		NO. OF ACRES IN LEASE		OF ACRES ASSIGNED		
PROPERTY OR LEASE I (Also to nearest drig	INE, FT.	820	820 Unit		TO THIS WELL W / 246.88		
18. DISTANCE FROM PROF TO NEAREST WELL, D	USED LOCATION*	i	PROPOSED DEPTH	3	RY OR CABLE TOOLS		
OR APPLIED FOR, ON TH		1700	5675 '	Rota	ry		
21. ELEVATIONS (Show who 6349 GL	ether DF, RT, GR, etc.)				22. APPROX. DATE WORK WILL START*		
			W		<u> </u>		
23.		PROPOSED CASING AN	ND CEMENTING PROGR.	AM			
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH		QUANTITY OF CEMENT		
13 3/4"	9 5/8"	32.3#	200'	224	cu.ft. to circulate		
8 3/4" 6 1/4"	7" 4 1/2"lin	20.0# er 10.5#	3365'	288	<u>cu.ft.to cover Ojo A</u> lam cu.ft.to fill to 3215'		
					sa Verde formation. er equipped with		
blind and	pipe rams w	ill be used	for blow out	preve	ntion on this well.		
					and the second s		
mi- i					and the second second		
This gas	is dedicated	•					
			٠				
The $W/2$ of	f Section 30	is dedicate	d to this wel	1.			
IN ABOVE SPACE DESCRIBE	PROPOSED PROGRAM: If drill or deepen direction	proposal is to deepen or	plug back, give data on p	resent prod	luctive zone and proposed new productive d and time vertical depths. Give blowout		
24.	11 1				Section Processing		
SIGNED .	Juseu	TITLE	Drilling	Cler	C DATE 1-12-78		
(This space for Fede	ral or State office use)						
NEDALIE NO			ADDROVAL BAND				
PERMIT NO.			APPROVAL DATE	EGEIVED			
APPROVED BY		TITLE			DATE		
CONDITIONS OF APPROV					IAN 1 0 1070		
/1	11/2		4		JAN 1 6 1978		
	Kal	,	1		11 S CECLODICAL AND		
		*See Instruction	s On Reverse Side		U. S. GEOLOGICAL SURVEY		

NWU-102

		All distances must be	from the outer bound	aries of the Section.			
Operator Lease Well No.							
El Paso Nat	tural Gas Com	pany	San Juan	29-7 Unit (S	SF-078503-A) 78A		
Unit Letter	Section	Township	Range	County			
C	30	29N	7W	Rio	Arriba		
Actual Footage Loc	ution of Well:				- 1 th Aut II '12		
820	feet from the	orth line on	1180	feet from the	West. line		
Ground Level Elev.	Producing For		Pool		Dedicated Acreage:		
6349	Mesa Ve	rdo	Blan	ico Mesa Verd			
							
1. Outline the	e acreage dedica	ted to the subject	vell by colored pe	encil or hachure	marks on the plat below.		
2. If more th	an one lease is	dedicated to the we	ll, outline each a	ınd identify the o	ownership thereof (both as to working		
interest an	d royalty).						
3. If more tha	n one lease of d	ifferent ownership is	dedicated to the	well, have the i	interests of all owners been consoli-		
		nitization, ferce-poo					
		•	_				
X Yes	No If an	iswer is "yes;" type	of consolidation	Unitizat	ion		
<u></u>		, , , , , , , ,					
If answer i	s "no," list the	owners and tract des	criptions which h	ave actually bea	en consolidated. (Use reverse side of		
	necessary.)						
	•	ad to the well until a	Il interests have	haan aanaalidat	ed (by communitization, unitization,		
formed need	isa on athenrical	or until a new stands	n interests have	been consolicat	ed (by communitization, unitization,		
	ing, or otherwise,	or until a no i-standa	ra unit, etiminati	ng such interest	s, has been approved by the Commis-		
sion.		management of the 20					
					CERTIFICATION		
1×8			i		CERTIFICATION		
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	820	Ø	1		I hereby certify that the information con-		
() () () () () () () () () ()	. '	Á	1		tained herein is true and complete to the		
	180	K)	· 1		best of my knowledge and belief.		
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L,777, M = -		🛚 📈			Drilling Clerk		
	1	ΙŇ	1		brilling Clerk		
		K)			Position		
	ł	Ø			El Paso Natural Gas		
	1	M	1		Company January 12, 1978		
	i	X			January 12, 1978		
	ı	K)			Date		
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	i	∅ 30					
	ı	X	ļ i		I hereby certify that the well location		
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	i	X	ł		shown on this plat was plotted from field		
	SF-078503-A	X			notes of actual surveys made by me or		
$I \wedge M$	I TO TO JOSTA	\bowtie	1 .		under my supervision, and that the same		
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		K)	1		knowledge and belief.		
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T X	1	\mathcal{A}			October 20, 1977		
	1	₩ N			Begistered Professional Engineer		
I No. M	İ	M	, t ,		and/or Land Surveyor (1)		
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-					Fred B. Korr Jr.		
Manager to Tale	The state of the s		The state of the s		2050		



P. O. BOX 990 FARMINGTON, NEW MEXICO 87401 PHONE: 505-325-2841

Multi-Point Surface Use Plan

San Juan 29-7 Unit #78A

- 1. Existing Road Please refer to Map No. 1 which shows
 the existing roads. New roads which will
 be required have been marked on this map.
 All existing and new roads will be properly
 maintained during the duration of this project.
- 2. Planned Access Roads Please refer to Map No. 1. The grade of the access roads will be consistent with that of the local terrain. The road surface will not exceed twenty feet (20') in width. Upon completion of the project, the access road will be adequately drained to control soil erosion. Drainage facilities may include ditches, water bars, culverts or any other measure deemed necessary by trained Company personnel to insure proper drainage. Gates and/or cattleguards will be installed if necessary.
- 3. Location of Existing Wells Please refer to Map No. 2
- 4. Location of Tank Batteries, Production Facilities, and Production
 Gathering and Service Lines Please refer to Maps No. 1 and No. 2.

 Map No. 2 shows the existing gas gathering
 lines. Map No. 1 shows the existing roads and
 new proposed access roads. All known production
 facilities are shown on these two maps.
- 5. Location and Type of Water Supply Water for the proposed project will be obtained from a water hole located at Manzaneras Water Well.
- 6. Source of Construction Materials No additional materials will be required to build either the access road or the proposed location.

- Methods of Handling Waste Materials All garbage and trash materials will be put into a burn pit shown on the attached Location Plat No. 1. When clean-up operations are begun on the proposed project, the burn pit with its refuse will be buried to a depth of at least three feet (3'). A latrine, the location of which is also shown on Plat No. 1 will be provided for human waste. If large amounts of liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying any of these materials into the watershed. No earthen pit will be located on natural drainages; all earthen pits will be so constructed as to prevent leakage from occurring.
- 8. Ancillary Facilities No camps or airstrips will be associated with this project.
- 9. Wellsite Layout Please refer to the attached Plat No. 1.
- 10. Plans for Restoration of the Surface After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed Mixture #2 will be used. The reseeding operation will be performed during the time period set forth by the regulatory body. The location production equipment will be painted brown (Federal Standard #595-30318)
- 11. Other Information The terrain is sandstone ledges and high hills with pinon and cedar trees. Cattle graze the proposed project site.

- 12. Operator's Representative W. D. Dawson, Post Office Box 990, Farmington, New Mexico 87401
- 13. 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 El Paso Natural Gas Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

January 12, 1978

D R Read

Division Drilling Engineer

DRR:pb

Operations Plan San Juan 29-7 Unit #78A

I. <u>Location:</u> 820'N, 1180'W, Section 30, T-29-N, R-7-W, Rio Arriba County, NM Field: Blanco Mesa Verde Elevation: 6349'GL

II. Geology:

- A. Formation Tops: Surface San Jose Lewis 3164' Ojo Alamo 2094' Mesa Verde 4608' Kirtland 2337' Menefee 4824' Fruitland 2700**'** Point Lookout 5224' 3039' Total Depth Pic.Cliffs 5675
- B. Logging Program: GR-Ind. and GR-Density at Total Depth.
- C. Coring Program: none
- D. Natural Gauges: 4598', 4815', 5215' and at Total Depth. Also gauge any noticeable increase in gas. Record all gauges in daily drilling report and on morning report.

III. Drilling:

A. Mud Program: mud from surface to 3365'. Gas from intermediate casing to Total Depth.

IV. Materials:

Α.	Casing Program:	Hole Size	Depth	Casing Size	Wt.&Grade
		13 3/4"	200'	9 5/8"	32.3# H-40
		8 3/4"	3365'	7"	20.0# K-55
		6 1/4"	3215-5675'	4 1/2"	10.5# K-55

B. Float Equipment: 9 5/8" surface casing - Larkin guide shoe (fig. 102)

7" intermediate casing - Dowell guide shoe (fig. 50101) and Dowell self-fill insert float valve (fig. 53003), 5 B&W stabilizers (Prod. No. 637085) every other joint above shoe. Run float two joints above shoe.

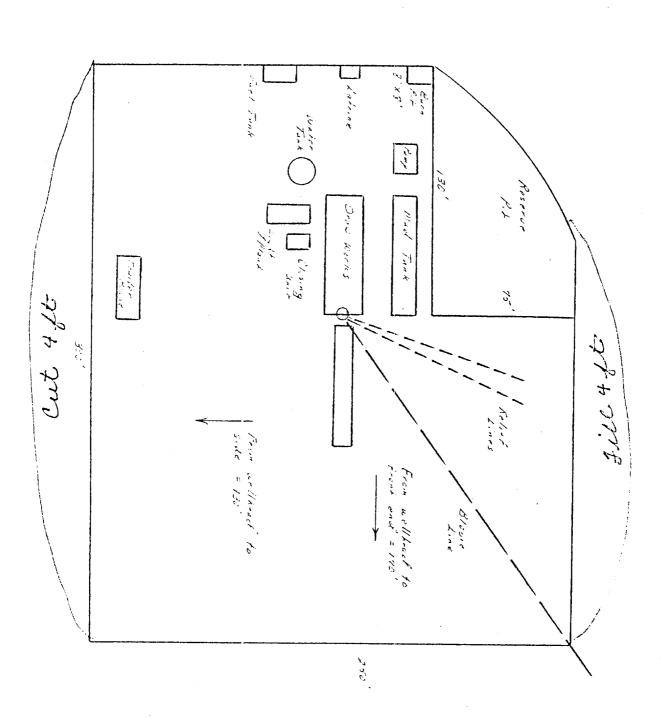
- 4 1/2" liner 4 1/2" liner hanger with neoprene packoff. Larkin geyser shoe (fig. 222) and Larkin flapper type float collar (fig. 404 M&F).
- C. Tubing: 5675' of 2 3/8", 4.7#, J-55 8rd EUE tubing with a common pump seating nipple above perforated pup joint with bull plugged full joint for mud anchor on bottom.
- D. Wellhead Equipment: 10" 900 x 9 5/8" casing head. 10" 900 x 6" 900 xmas tree.

V. Cementing:

9 5/8" surface casing - use 190 sks. of Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (224 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600#/30 minutes.

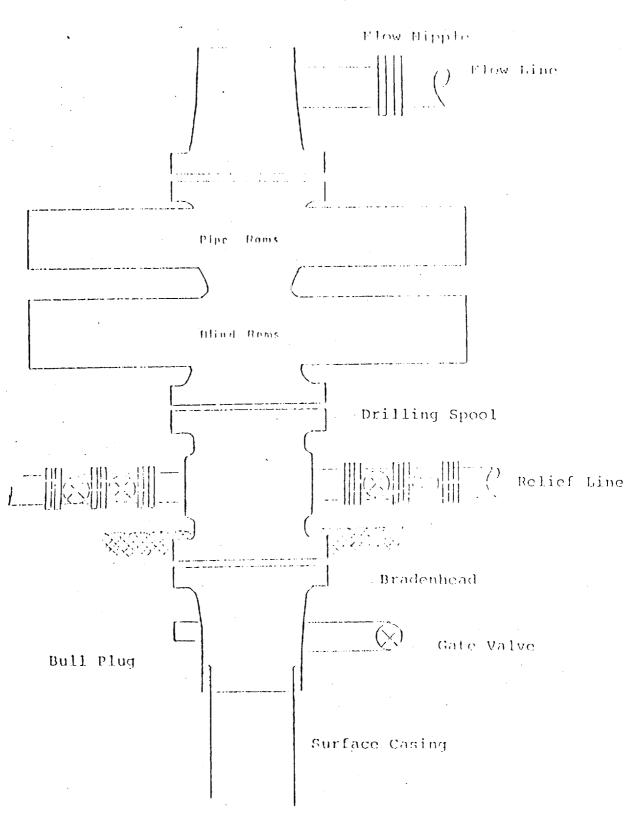
7" intermediate casing - use 105 sks. of 65/35 Class "B" Poz with 6% gel and 2% calcium chloride (8.3 gallons of water per sack) followed by 100 sks. of Class "F" with 2% calcium chloride (288 cu.ft. of slurry, 50% excess to cover Ojo Alamo). Run temperature survey at 8 hours. WOC 12 hours. Test casing to 1200#/30 minutes.

4 1/2" liner - precede cement with 20 barrels of gel water (2 sks. gel) Cement with 245 sks. of Class "B" cement with 4% gel, 1/4 cu.ft. of fine gilsonite per sack and 0.6% Halad-9 (431 cu.ft. of slurry, 70% excess to circulate liner). WOC 18 hours.



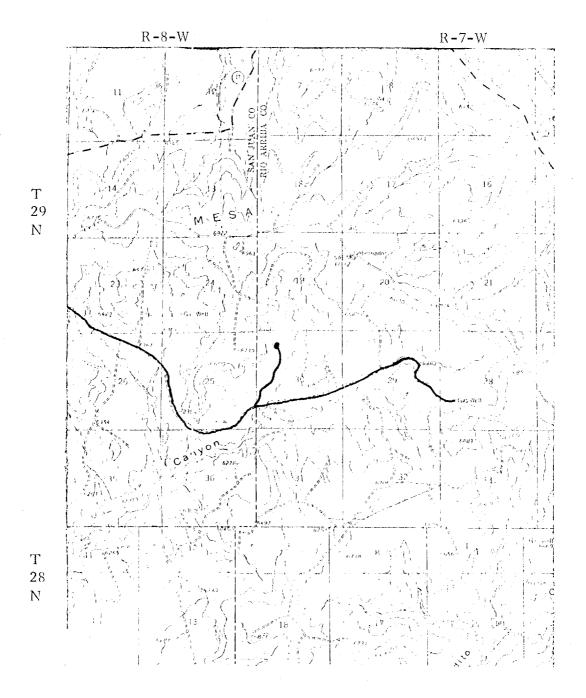
Typical Lucation Plat for Mesa Verde and Lutata Wells

Typical B.O.P. Installation for Mega Verde Well



Series 900 Double Gate BOP, rated at 3000 psi Working Pressure When gas drilling operations begin a Shaffer type 50 or equivalent rotating head is installed on top of the flow nipple and the flow line is converted into a blowie line

EL PASO NATUR VL GAS COMPANY San Juan 29-7 Unit #78A SWNW 30-29-7



MAP #1

EXISTING	ROMOS			
EXISTING	PIPULINES		+ -	! -
EXISTIES	ROAD - ITHELEH	35-1	j	Ł
PROPOSED	ROADS			
PROPOSED	PIPHAMES .	-	+	+
TROPOGED	ROAD THEELE	`⊩ ⊣		+

EL PASO NATURAL GAS COMPANY San Juan 29-7 Unit #78A SWNW 30-29-7

