

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. SF 080430	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>				6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR El Paso Natural Gas Company				7. UNIT AGREEMENT NAME San Juan 28-6 Unit	
3. ADDRESS OF OPERATOR PO Box 289, Farmington, NM 87401				8. FARM OR LEASE NAME San Juan 28-6 Unit	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1120'N, 1200'W At proposed prod. zone same				9. WELL NO. 28A (PM)	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 18 miles southeast of Blanco, NM				10. FIELD AND POOL OR WILDCAT undes. Pic. Cliffs	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1120'				11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 18, T-28-N, R-6-W	
16. NO. OF ACRES IN LEASE unit				12. COUNTY OR PARISH Rio Arriba	
17. NO. OF ACRES ASSIGNED TO THIS WELL 131.51 + W/262.76				13. STATE NM	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2000'				20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6617'GL				22. APPROX. DATE WORK WILL START*	
23. PROPOSED CASING AND CEMENTING PROGRAM					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT	
13 3/4"	9 5/8"	36.0#	200'	224 cu.ft. to circulate	
8 3/4"	7"	20.0#	3753'	275 cu.ft. to cover Ojo Alamo	
6 1/4"	4 1/2" liner	10.5#	3603-6047'	427 cu.ft. to circ. liner	

Selectively perforate and sandwater fracture the Mesa Verde and Pictured Cliffs formation.

A 3000 psi WP and 6000 psi test double gate preventer equipped with blind and pipe rams will be used for blow out prevention on this well.

This gas is dedicated.

The W/2 of Section 18 is dedicated to this well.

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.

24.

SIGNED A. G. Busico TITLE Drilling Clerk DATE 9-20-79

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

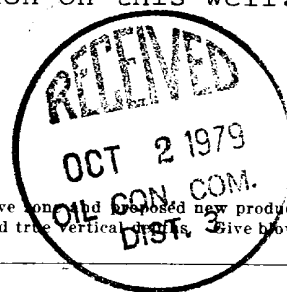
TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

ok Frank
NW both zones
unit agreement

*See Instructions On Reverse Side



OCT 01 1979

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

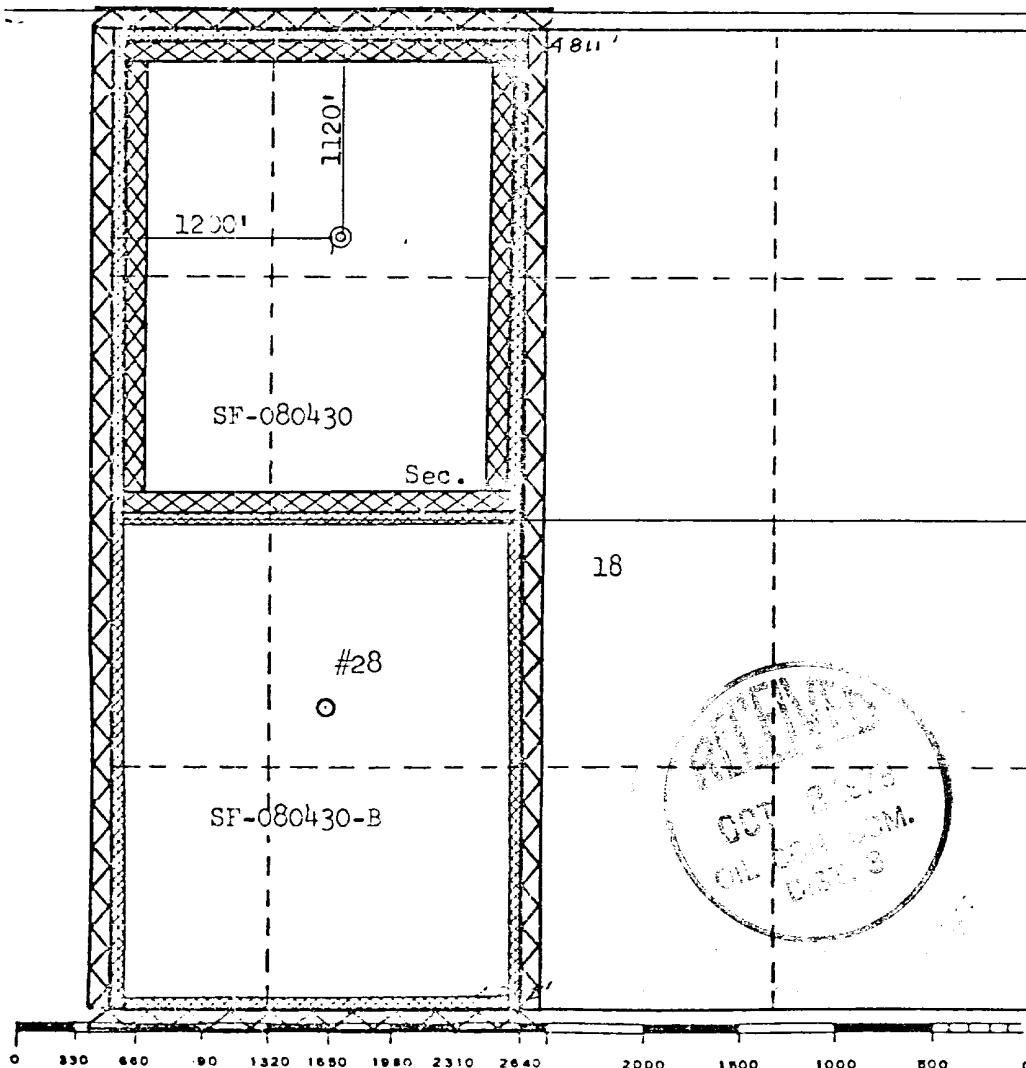
Operator EL PASO NATURAL GAS COMPANY			Lease SAN JUAN 28-6 UNIT (SF-080430)		Well No. 28A
Unit Letter C	Section 18	Township 28N	Range 6W	County Rio Arriba	
Actual Footage Location of Well: 1120 feet from the North line and 1200 feet from the West line					
Ground Level Elev. 6617	Producing Formation Mesa Verde	Pictured Cliffs	Pool Undesignated Pictured Cliffs Blanco Mesa Verde	Dedicated Acreage: 131.51 & 262.76 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 Unitization

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.



CERTIFICATION

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

A. J. Buice

Name

Drilling Clerk

Position

El Paso Natural Gas Co.

Company

September 20, 1979

Date

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

August 28, 1979

Registered Professional Engineer and/or Land Surveyor

Fred E. Kerr Jr.
Fred E. Kerr Jr.

Certificate No.

3950

Multi-Point Surface Use Plan

San Juan 28-6 Unit #28A

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 29-6 Water Well.
6. Source of Construction Materials - No additional materials will be required to build either the access road or the proposed location.
7. 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,

7. cont'd. · 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 as designated by the responsible government agency 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 as designated by the responsible government agency.
11. Other Information - The terrain is rolling hills with pinon, sage brush and juniper growing. Cattle and deer are occasionally seen on the proposed project site.
12. Operator's Representative - W.D. Dawson, PO Box 990, Farmington, NM
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.

L. A. Aimes

L. A. Aimes
Project Drilling Engineer

Operations Plan
San Juan 28-6 Unit #28A

I. Location: 1120'N, 1200'W, Section 18, T-28-N, R-6-W, Rio Arriba County, NM

Field: Undes. Pic.Cliffs & Blanco MV Elevation: 6617'GR

II. Geology:

A. Formation Tops:	Surface	San Jose	Lewis	3553'
	Ojo Alamo	2528'	Mesa Verde	4945'
	Kirtland	2698'	Menefee	5225'
	Fruitland	3181'	Point Lookout	5597'
	Pic.Cliffs	3417'	Total Depth	6047'

B. Logging Program: I-ES and GR-Density at 3755'.
GR-Ind. and GR-Density at Total Depth.

C. Coring Program: none

D. Natural Gauges: 4935', 5215', 5585' 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 3753'. Gas from intermediate casing to Total Depth.

IV. Materials:

A. Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Casing Size</u>	<u>Wt.&Grade</u>
	13 3/4"	200'	9 5/8"	36.0# K-55
	8 3/4"	3753'	7"	20.0# K-55
	6 1/4"	3603-6047'	4 1/2"	10.5# K-55

B. Float Equipment: 9 5/8" surface casing - cement guide shoe.

7" intermediate casing - cement guide shoe and self-fill insert float valve, 5 stabilizers every other joint above shoe. Run float two joints above shoe.

4 1/2" liner - 4 1/2" liner hanger with neoprene packoff & PBR. Geyser shoe and flapper type float collar

C. Tubing: 6047' of 2 3/8", 4.7#, J-55 8rd EUE tubing with a common pump seating nipple one joint above bottom. Tubing will be open ended.
3603' of 1 1/4", 2.33# J-55 IJ tubing with a common pump seating nipple above a perforated joint plugged on bottom. Isolate producing formations with a packer.

D. Wellhead Equipment: 10" 900 x 9 5/8" casing head. 10" x 7" casing hanger, 10" 2000 x 6" 2000 dual tubing head.

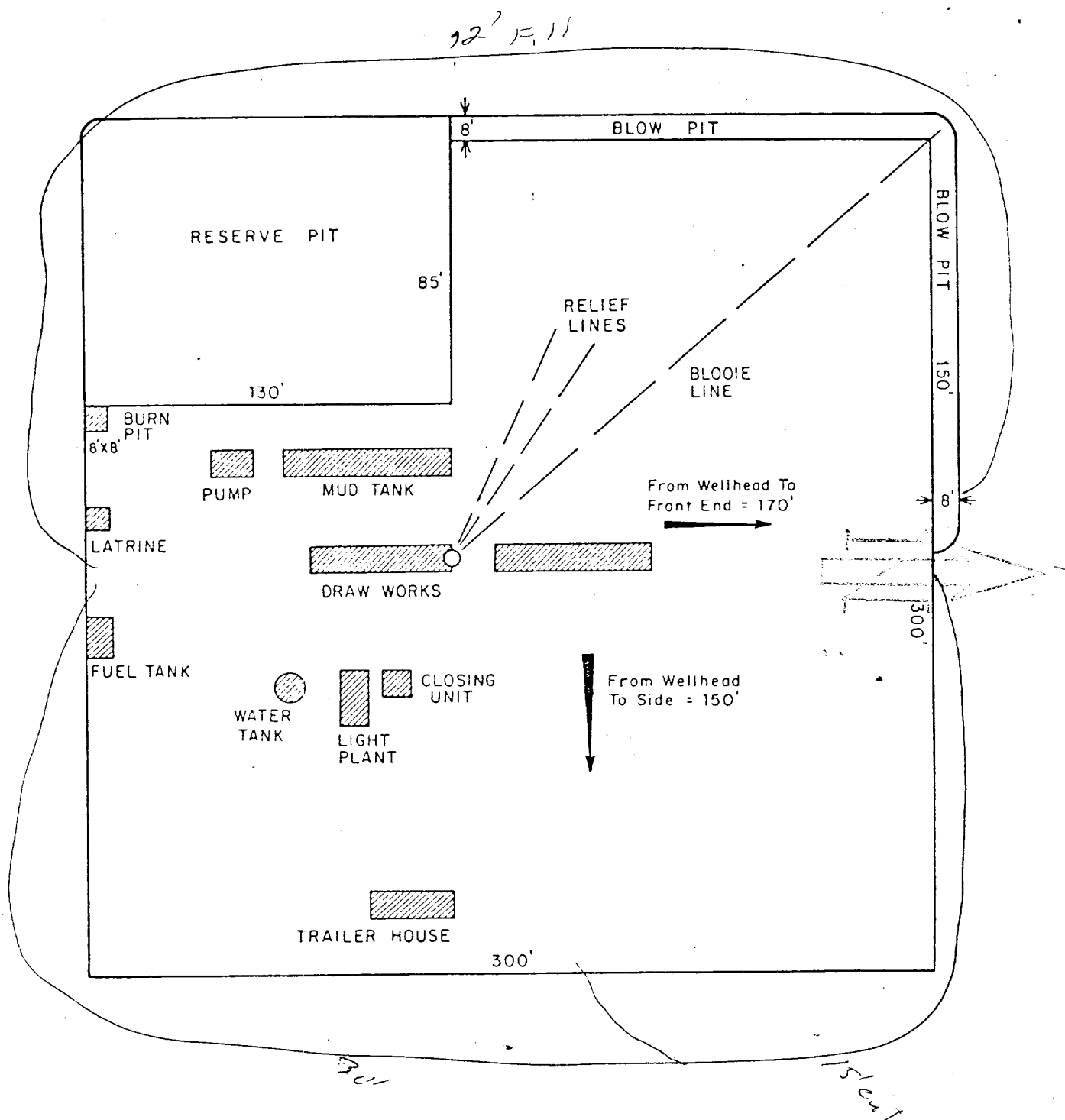
Operations Plan - San Juan 28-6 Unit #28A

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.

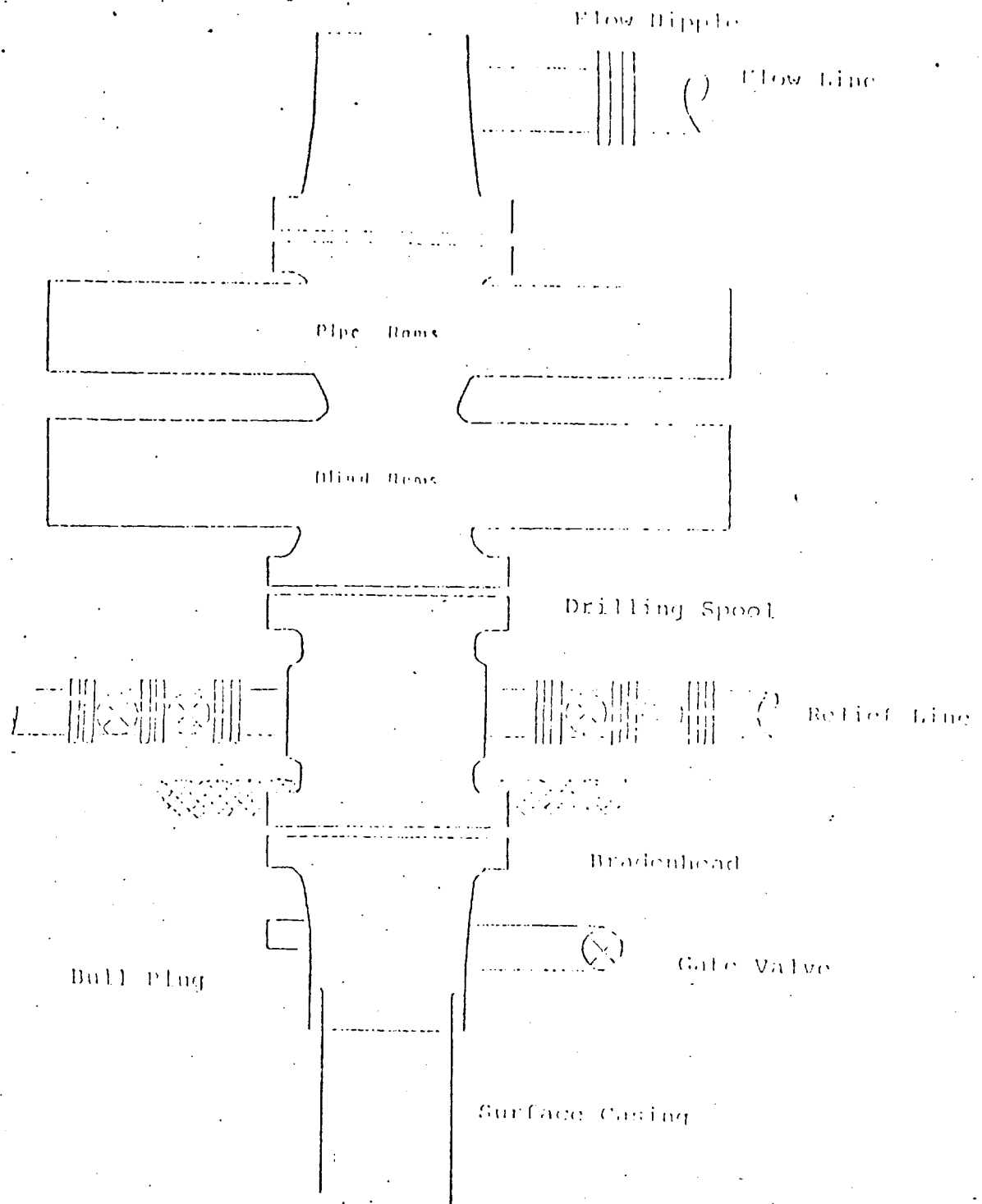
7" intermediate casing - use 97 sks. of 65/35 Class "B" Poz with 6% gel and 2% calcium chloride (8.3 gallons of water per sack) followed by 100 sks. of Class "B" with 2% calcium chloride (275 cu.ft. of slurry, 50% excess to cover Ojo Alamo). Run temperature survey at 8 hours. WOC 12 hours. Test casing to 1200#/30 minutes.

4 1/2" liner - precede cement with 20 barrels of gel water (2 sks. gel) Cement with 307 sks. of 50/50 Class "B" Poz with 2% gel, 0.6% Halad-9, 6.25# gilsonite plus 1/4# Flocele per sack (427 cu.ft. of slurry, 70% excess to circulate liner). WOC 18 hours.



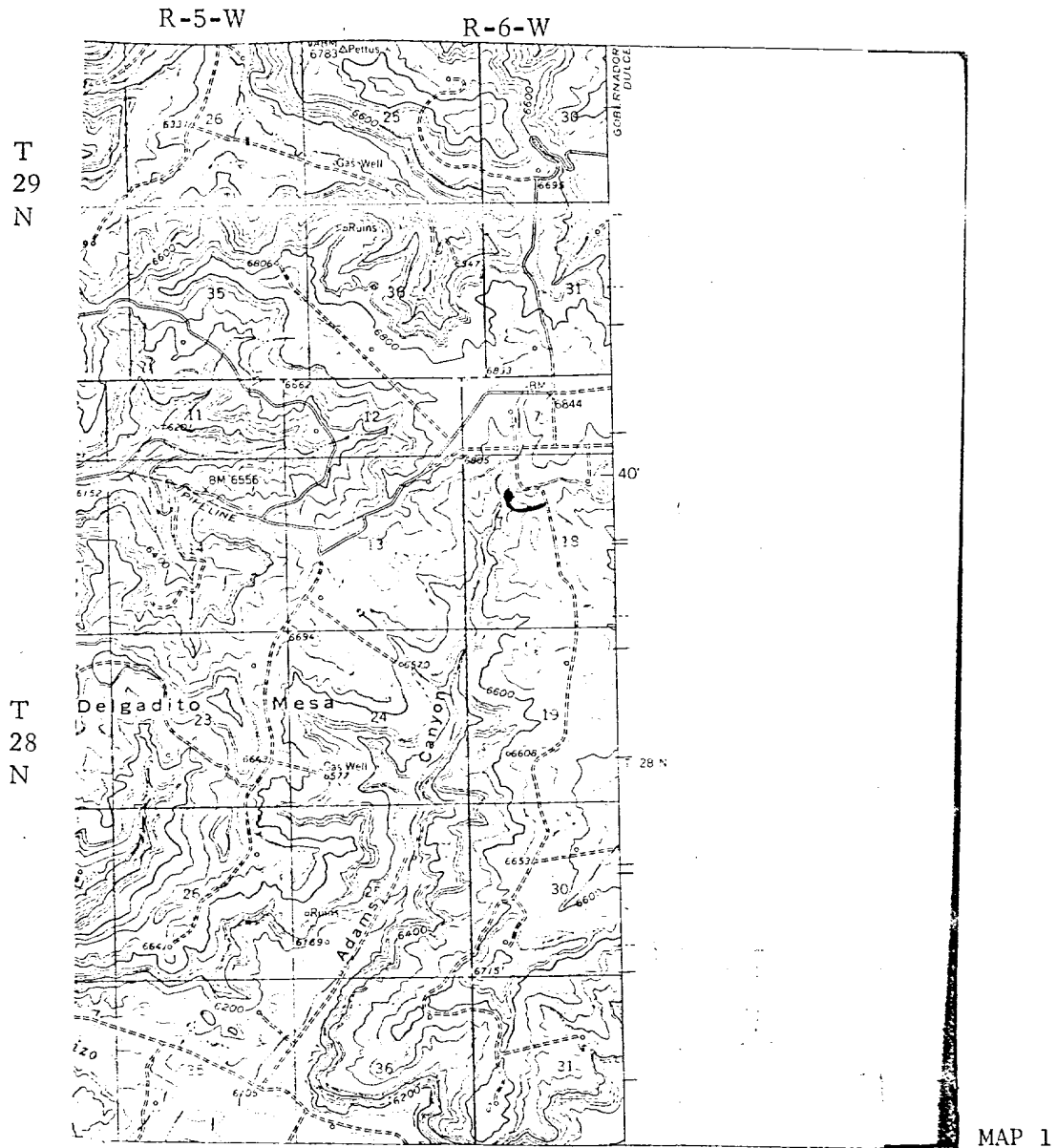
PRT.			SEP.	DATE	TO	W.O.	ENG. REC.	DATE	 El Paso Natural Gas Company TYPICAL LOCATION PLAT FOR MESAVERDE OR DAKOTA DRILL SITE	SCALE: 1" = 50'	DWG. NO.	RE
DRAWN			J. L. H.	8-16-78								
CHECKED												
CHECKED												
PROJ. APP												
DESIGN												
PRINT RECORD							W.O.					

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



Series 900 Double Gate ROP, 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 Natural Gas Company
San Juan 28-6 Unit #28A
NW 18-28-6



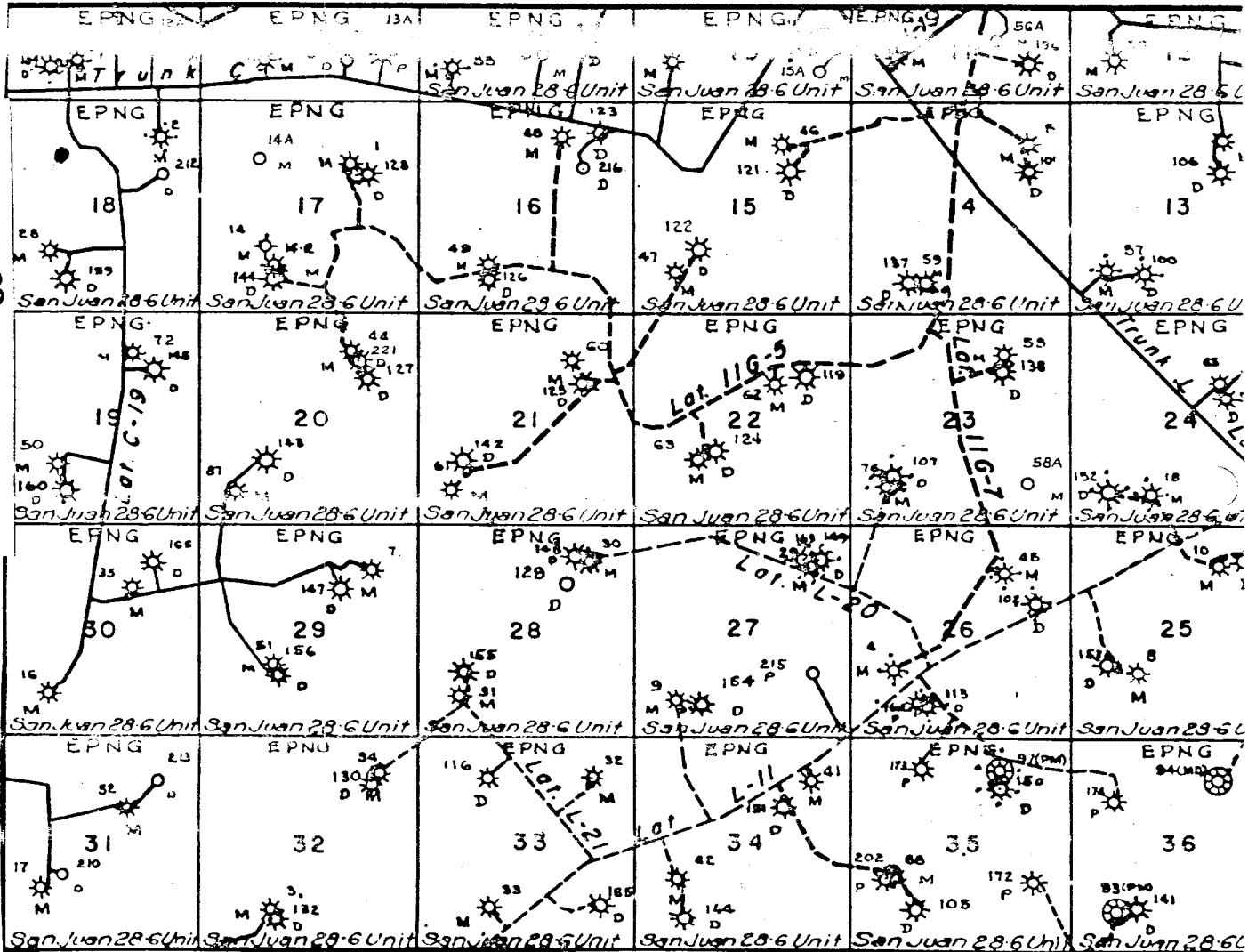
LEGEND OF RIGHT-OF-WAYS

EXISTING ROADS	—
EXISTING PIPELINES	+ + +
EXISTING ROAD & PIPELINE	+ + +
PROPOSED ROADS	—
PROPOSED PIPELINES	+ + +
PROPOSED ROAD & PIPELINE	+ + +

El Paso Natural Gas Company
San Juan 28-6 Unit #28A
NW 18-28-6

R-6-W

T
28
N



MAP 2

Proposed Location