

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

El Paso Natural Gas Company

3. ADDRESS OF OPERATOR

PO Box 289, Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

950'S, 1520'E

At proposed prod. zone

same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

5 miles West of Navajo City, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

950'

16. NO. OF ACRES IN LEASE

unit

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

2500'

19. PROPOSED DEPTH

7660'

20. ROTARY OR CABLE TOOLS

Rotary

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

6360' 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
17 1/2"	13 3/8"	48.0#	200'	278 cu.ft. circ. to surface
12 1/4"	9 5/8"	40.0#	3525'	547 cu.ft. to cover Ojo Alamo
8 3/4"	7"	23.0#	3375-5945'	660 cu.ft. to circ. liner
6 1/4"	4 1/2"	11.6#	5795-7660'	325 cu.ft. to circ. liner

Selectively perforate and sandwater fracture the Mesa Verde and Dakota 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 E/2 of Section 26 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 12-3-79

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

ch Burch

*See Instructions On Reverse Side

DEC 10 1979

GEOLOGICAL SURVEY
DENVER, COLO.

All distances must be from the outer boundaries of the Section

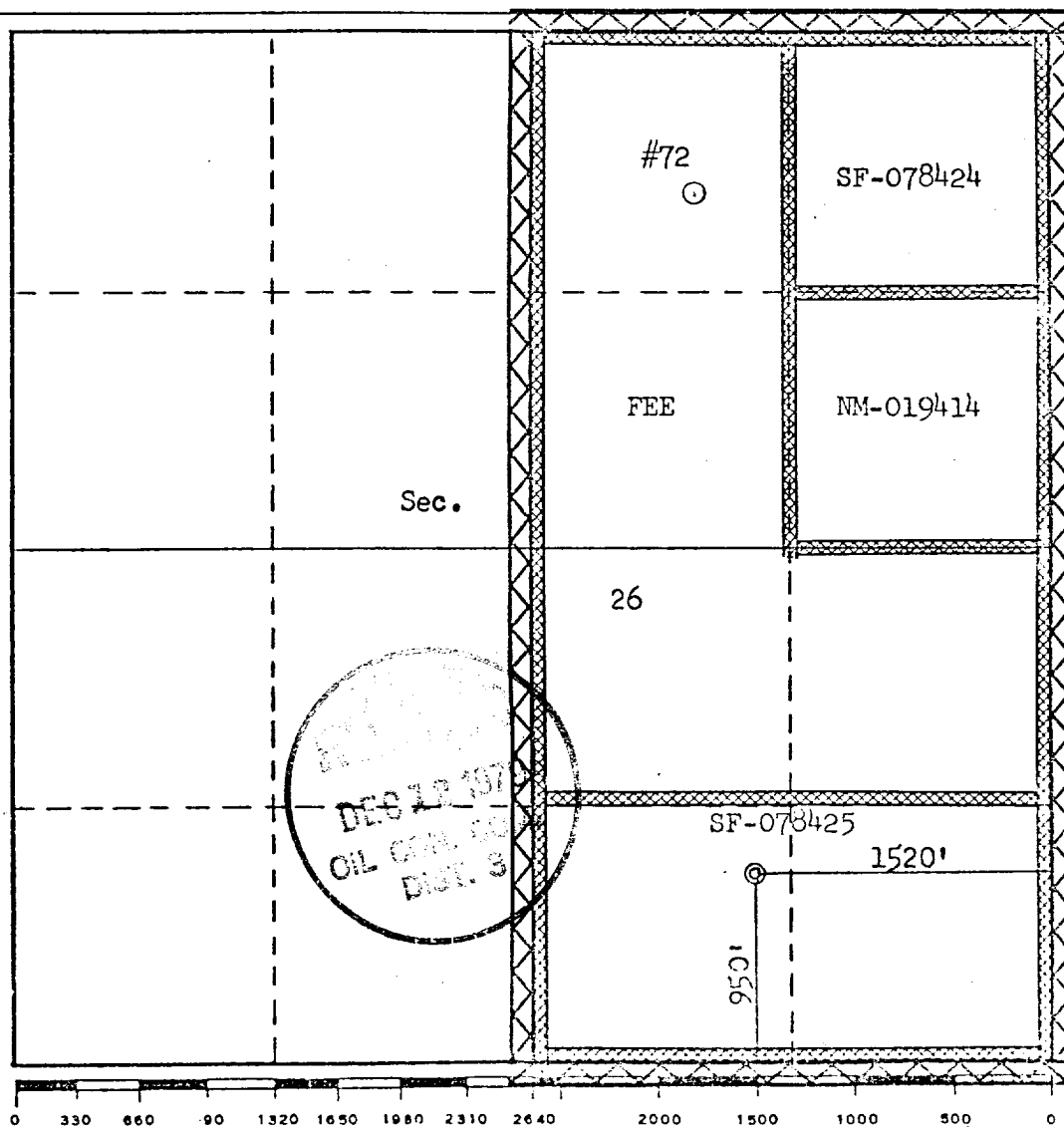
Operator EL PASO NATURAL GAS COMPANY			Lease SAN JUAN 29-7 UNIT (SF-078425)		Well No. 72A
Unit Letter 0	Section 26	Township 29N	Range 7W	County Rio Arriba	
Actual Footage Location of Well: 950 feet from the South line and 1520 feet from the East line					
Ground Level Elev. 6360	Producing Formation Mesa Verde - Dakota	Pool Blanco Mesa Verde Basin Dakota	Dedicated Acreage: 320.0 & 320.0 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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. G. Suarez

Name **Drilling Clerk**

Position **El Paso Natural Gas Co**

Company **December 3, 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 1, 1979
Registered Professional Engineer
and/or Licensed Surveyor

[Signature]
Certified by **NEW MEXICO**
3950 B. KERR JR.

Multi-Point Surface Use Plan

San Juan 29-7 Unit #72A

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 29-7 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 sagebrush flats with sagebrush 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
Project Drilling Engineer

Operations Plan
San Juan 29-7 Unit #72A

I. Location: 950'S, 1520'E, Section 26, T-29-N, R-7-W, Rio Arriba County, NM

Field: Blanco Mesa Verde & Basin Dakota Elevation: 6360'GL

II. Geology:

A. Formation Tops:	Surface	San Jose	Menefee	4968'
	Ojo Alamo	2365'	Point Lookout	5345'
	Kirtland	2430'	Gallup	6495'
	Fruitland	3000'	Greenhorn	7310'
	Pic.Cliffs	3210'	Graneros	7360'
	Lewis	3325'	Dakota	7520'
	Mesa Verde	4890'	Total Depth	7660'

B. Logging Program: GR-Ind. and GR-Density at Total Depth.

C. Coring Program: none

D. Natural Gauges: 4880', 5335', 6485', 7300', 7350', 7510' 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 3525'. Gas from intermediate casing to Total Depth.

IV. Materials:

A. Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Csg.Size</u>	<u>Wt.&Grade</u>
	17 1/2"	200'	13 3/8"	48.0# H-40
	12 1/4"	3525'	9 5/8"	40.0# N-80
	8 3/4"	3375-5945'	7"	23.0# N-80
	6 1/4"	5795-7660'	4 1/2"	11.6# K-55

B. Float Equipment: 13 3/8" surface casing - guide shoe.

9 5/8" intermediate casing - guide shoe and differential automatic fill up float collar. Five stabilizers, one each on every other joint above shoe. Run float collar two joints above shoe.

7" liner - 7" liner hanger with neoprene packoff. Geyser shoe and flapper type float collar. Four centralizers, one each on every other joint above shoe.

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

Operations Plan - San Juan 29-7 Unit #72A

C. Tubing: 7660' of 2 3/8", 4.7#, J-55 EUE 8rd tubing open ended on bottom with common pump seating nipple and pump out plug one joint above bottom.

5945' of 1 1/2", 2.9#, J-55 EUE 10rd tubing with a perf sub and common pump seating nipple one joint above bottom. Bottom joint to be bull plugged.

D. Wellhead Equipment: 12" 3000 x 13 3/8" casing head. 12" 3000 x 10" 3000 dual xmas tree.

V. Cementing:

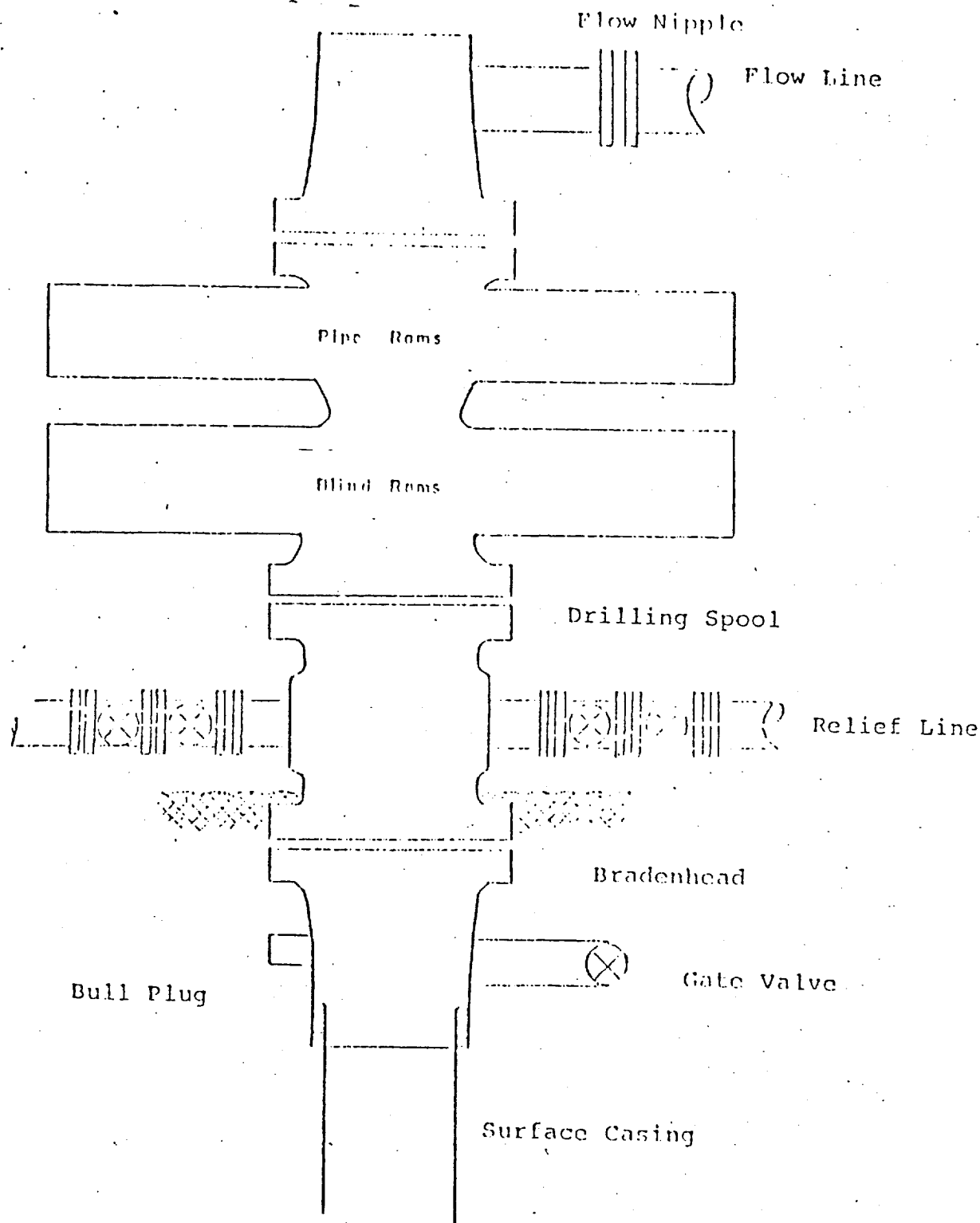
13 3/8" surface casing - use 236 sks. of Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (278 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600#/30 minutes.

9 5/8" intermediate casing - use 265 sks. 65/35 Class "B" Poz with 6% gel, 2% calcium chloride and 8.3 gallons water per sack followed by 100 sks. Class "B" neat with 2% calcium chloride (547 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.

7" liner - precede cement with 30 bbls. gel water (3 sks. gel). Cement with 475 sks. 50/50 Class "B" Poz with 2% gel, 6.15# gilsonite, 1/4# flocele and 0.6% Halad-9 (or equivalent fluid loss additive) (660 cu.ft. of slurry, 70% excess to circulate liner). WOC 12 hours. Test casing to 1200#/30 minutes.

4 1/2" liner - precede cement with 40 bbls. gel water (4 sks. gel). Cement with 95 sks. Class "B" cement with 8% gel, 1/4 cu.ft. fine gilsonite per sack and 0.4% HR-7 followed by 100 sks. Class "B" cement with 1/4# fine tuf-plug per sack and 0.4% HR-7 (325 cu.ft. of slurry, 70% excess to fill to circulate liner). WOC 18 hours.

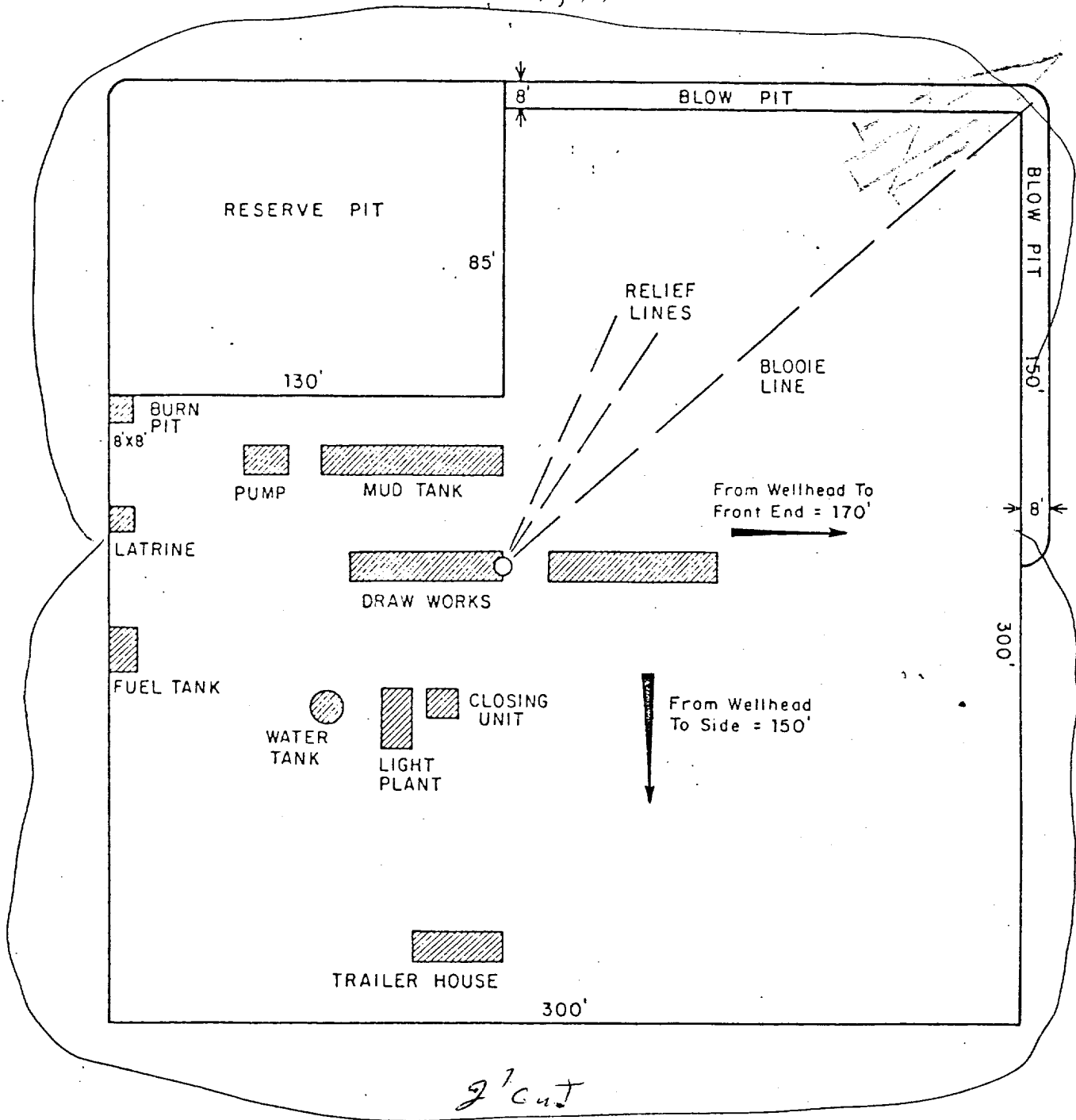
Typical B.O.P. Installation
for Dakota Well



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.

2' Fill



2' Cut

			ENG. REC.		DATE
PRT.	SEP.	DATE	TO	W.O.	
			DRAWN	J. L. H.	8-16-78
			CHECKED		
			CHECKED		
			PROJ. APP.		
			DESIGN		



El Paso Natural Gas Company

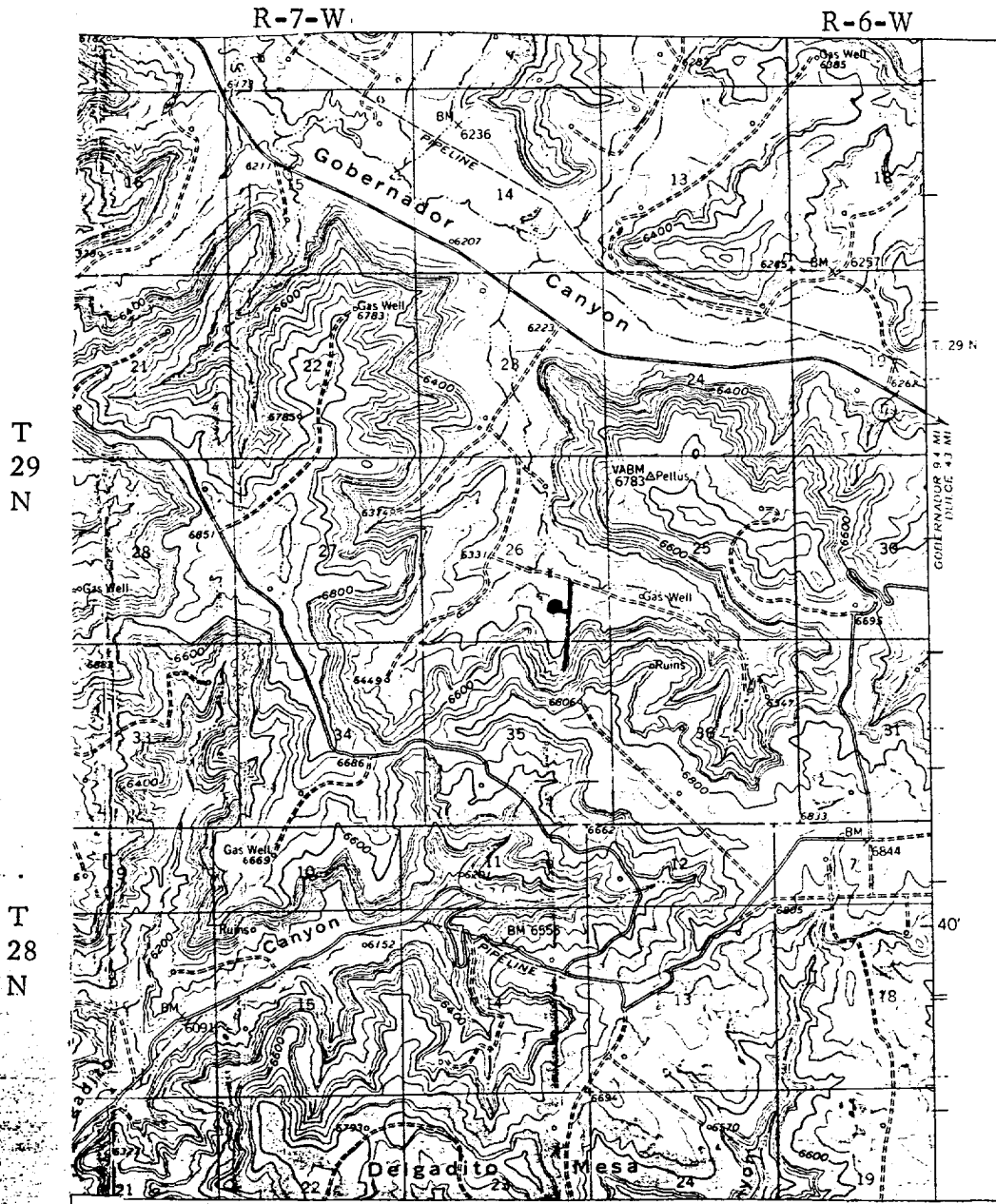
TYPICAL LOCATION PLAT FOR
MESAVERDE OR DAKOTA DRILL SITE

SCALE: 1" = 50'

DWG.

RE

El Paso Natural Gas Company
San Juan 29-7 Unit #72A
SE 26-29-7



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 29-7 Unit #72A
SE 26-29-7

