

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-045-24299

## 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. NM 02874A
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR El Paso Natural Gas Company		7. UNIT AGREEMENT NAME Huerfano Unit
3. ADDRESS OF OPERATOR PO Box 289, Farmington, NM 87401		8. FARM OR LEASE NAME Huerfano Unit
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements*) At surface 900'S, 1640'E At proposed prod. zone same		9. WELL NO. 177R
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 7 miles from Huerfano, NM		10. FIELD AND POOL, OR WILDCAT Basin Dakota
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 900'	16. NO. OF ACRES IN LEASE Unit	17. NO. OF ACRES ASSIGNED TO THIS WELL E/320.00
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1100'	19. PROPOSED DEPTH 6887'	20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6637'GR		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
12 1/4"	8 5/8"	24.0#	200'	165 cu.ft.circ. to surface
7 7/8"	4 1/2"	10.5#	6887'	1309 cu.ft. - 3 stages

1st stage - 416 cu.ft. to cover Gallup  
2nd stage - 522 cu.ft. to cover Mesa Verde  
3rd stage - 371 cu.ft. to cover Ojo Alamo

Selectively perforate and sandwater fracture the 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 22 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. J. Buisco TITLE Drilling Clerk DATE 1-23-80

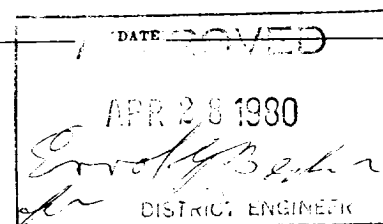
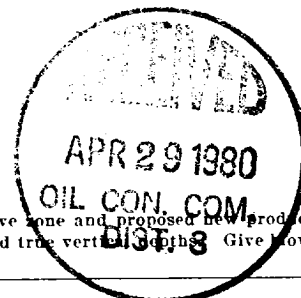
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side



## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088  
SANTA FE, NEW MEXICO 87501Form C-102  
Revised 10-1-78

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

Operator <b>EL PASO NATURAL GAS COMPANY</b>			Lease <b>HUERFANO UNIT (NM-02874-A)</b>		Well No. <b>177-R</b>
Unit Letter <b>0</b>	Section <b>22</b>	Township <b>26N</b>	Range <b>10W</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>900</b> feet from the <b>South</b> line and <b>1640</b> feet from the <b>East</b> line					
Ground Level Elev. <b>6627</b>	Producing Formation <b>DAKOTA</b>		Pool <b>BASIN DAKOTA</b>		Dedicated Acreage: <b>320.00</b> 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.

	<b>CERTIFICATION</b>  I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  <i>A. J. Sisco</i> Name Drilling Clerk Position El Paso Natural Gas Co. Company January 23, 1980 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.  <b>APR 29 1980</b> <b>OIL CON. COM.</b> Date Surveyed December 2, 1979 Registered Professional Engineer and/or Land Surveyor <i>Fred B. Kern Jr.</i> Fred B. Kern Jr. Certified by <i>G. B. Kern, Jr.</i> 3950

**El Paso** NATURAL GAS  
COMPANY

POST OFFICE  
FARMINGTON, NEW MEXICO 87401  
PHONE 465-0541

900 S. 1640 E

Well Name Huerfano Unit #177 R  
Location SE 22 26-10  
Formation DK

We, the undersigned, have inspected this location and road.

U. S. Forest Service  
Dabney Ford  
Archaeologist

Date  
1/11/80  
Date

Bureau of Indian Affairs Representative  
SOB Marler  
Bureau of Land Management Representative

Date  
1/11/80  
Date

Andy Stump  
U. S. Geological Survey Representative - AGREES  
TO THE FOOTAGE LOCATION OF THIS WELL.

1/11/80  
Date

REASON:

Seed Mixture: TT

Equipment Color: BROWN

Road and Row: (Same) or (Separate)

Remarks: \_\_\_\_\_

C.C. to Dave Vilvin  
Earl Mealer  
John Ahim

## Operations Plan - Huerfano Unit #177R

I. Location: 900'S, 1640'E, Section 22, T-26-N, R-10-W, San Juan County, NM

Field: Basin Dakota

Elevation: 6637'GR

### II. Geology:

A. Formation Tops:	Surface	Naciminto	Menefee	3729'
	Ojo Alamo	1283'	Point Lookout	4526'
	Kirtland	1336'	Gallup	5668'
	Fruitland	1911'	Greenhorn	6485'
	Pic.Cliffs	2105'	Graneros	6538'
	Lewis	2203'	Dakota	6639'
	Mesa Verde	3693'	Total Depth	6887'

B. Logging Program: Induction Electric and Gamma Ray Density at TD.

C. Coring: none

### III. Drilling:

A. Mud Program: mud from surface to Total Depth.

### IV. Materials:

A. Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Csg.Size</u>	<u>Wt.&amp;Grade</u>
	12 1/4"	200'	8 5/8"	24.0# K-55
	7 7/8"	6887'	4 1/2"	10.5# K-55

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

4 1/2" production casing - guide shoe and self-fill insert valve  
Two multiple stage cementers equipped for three stage cementing.  
Set tool for second stage at 5126' and tool for third stage at 2303'. Run 20 centralizers spaced as follows: one on each of the bottom 8 joints, one below each stage tool, and five above each stage tool spaced every other joint.

C. Tubing: 6887' of 2 3/8", 4.7#, J-55 tubing, common pump seating nipple and Baker expendable check valve with drill type guide.

D. Wellhead Equipment: 8" x 2000 psi wellhead.

### V. Cementing:

Surface casing (12 1/4" x 8 5/8") - use 140 sks. of Class "B" cement with 1/4# gel-flake per sack and 3% calcium chloride (165 cu.ft. of slurry, 100% excess to circulate). WOC 12 hours. Test to 600#/30 min.

Operations Plan - Huerfano Unit #177R

V. Cementing, cont'd.

Production casing - (7 7/8" x 4 1/2")

First stage - use 195 sks. of 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride mixed with 8.3 gallons water per sack followed by 100 sks. 50/50 Class "B" Pozmix with 2% gel, 2% calcium chloride and 1/4# fine tuf-plug per cu.ft. (416 cu.ft. of slurry, 50% excess to cover the Gallup).

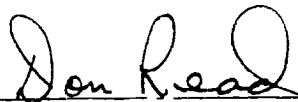
Second stage - circulate mud for 2.5 hours, then cement with 322 sks. of 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride and 8.3 gallons of water per sack (522 cu.ft. of slurry, 60% excess to cover the Mesa Verde).

Third stage - circulate mud for 2.5 hours, then cement using 229 sks. Class "B" Pozmix with 6% gel and 2% calcium chloride mixed with 8.3 gallons water per sack (371 cu.ft. of slurry, 60% excess to fill to top of Ojo Alamo). Run temperature survey on top stage only at 8 hours. WOC 18 hours.

Multi-Point Surface Use Plan  
Huerfano Unit #177R

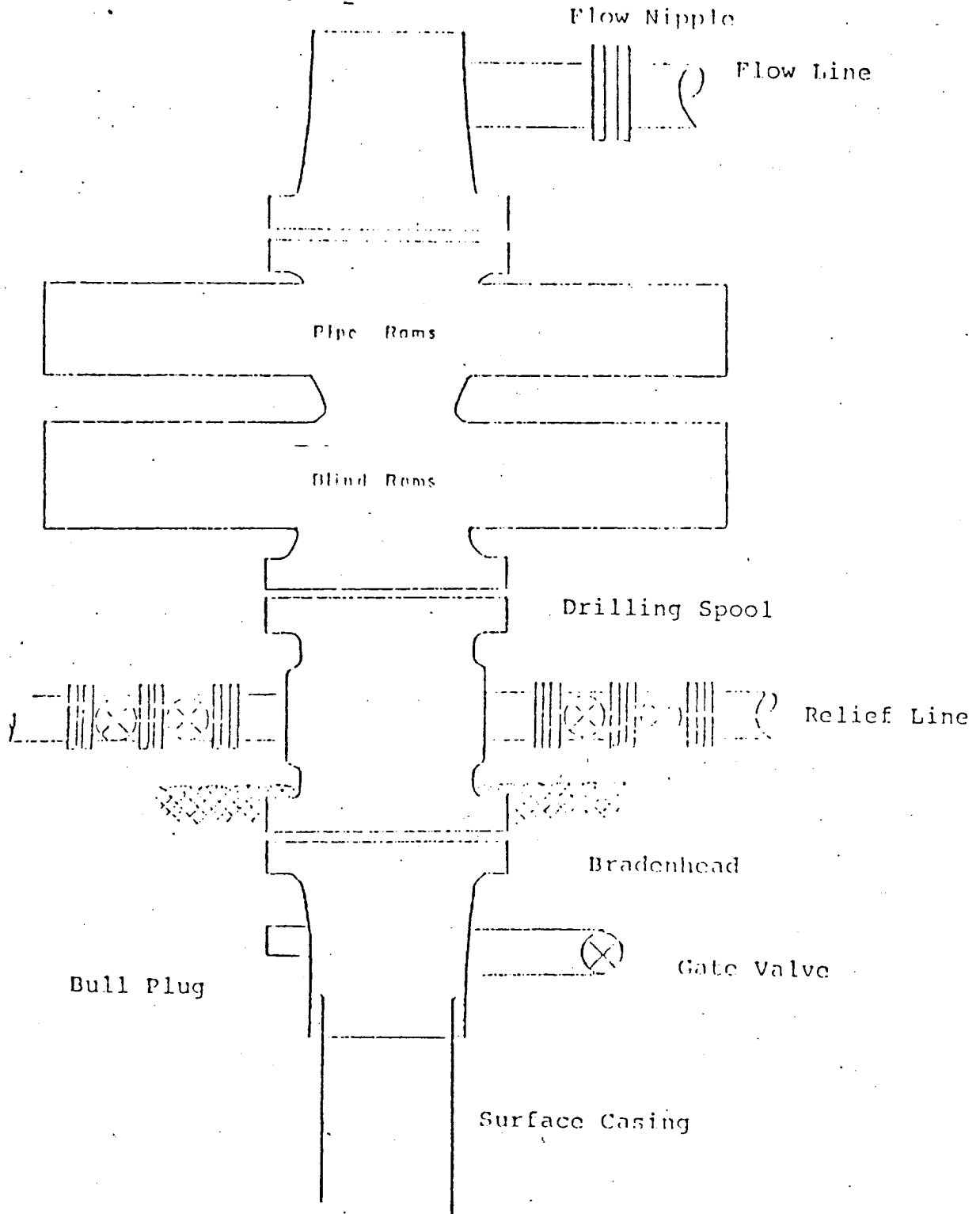
1. Existing Road - Please refer to Map No. 1 which shows the existing roads. New roads which will be required have been marked on this map. All existing and new roads will be properly maintained during the duration of this project.
2. Planned Access Roads - Please refer to Map No. 1. The grade of the 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 Huerfano Water Well #2.
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, sheep, antelope and horses 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.



D. R. Read  
Project Drilling Engineer

# Typical B.O.P. Installation for Dakota Well

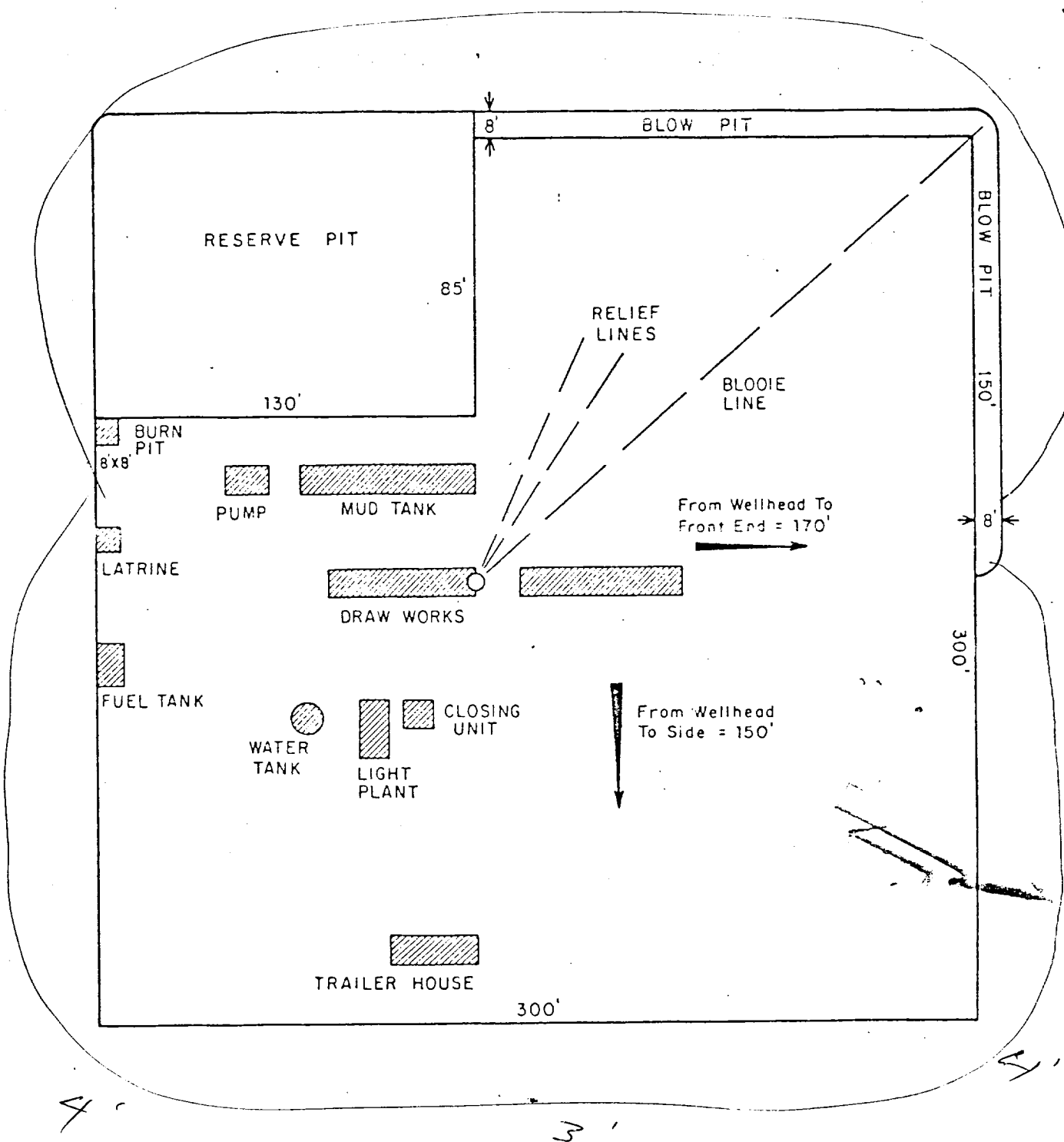


Series 900 Double Gate BOP, rated  
at 3000 psi Working Pressure


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.



3' 11"



PRT.	SEP.	DATE	TO	W.O.	ENG. REC.	DATE
					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.

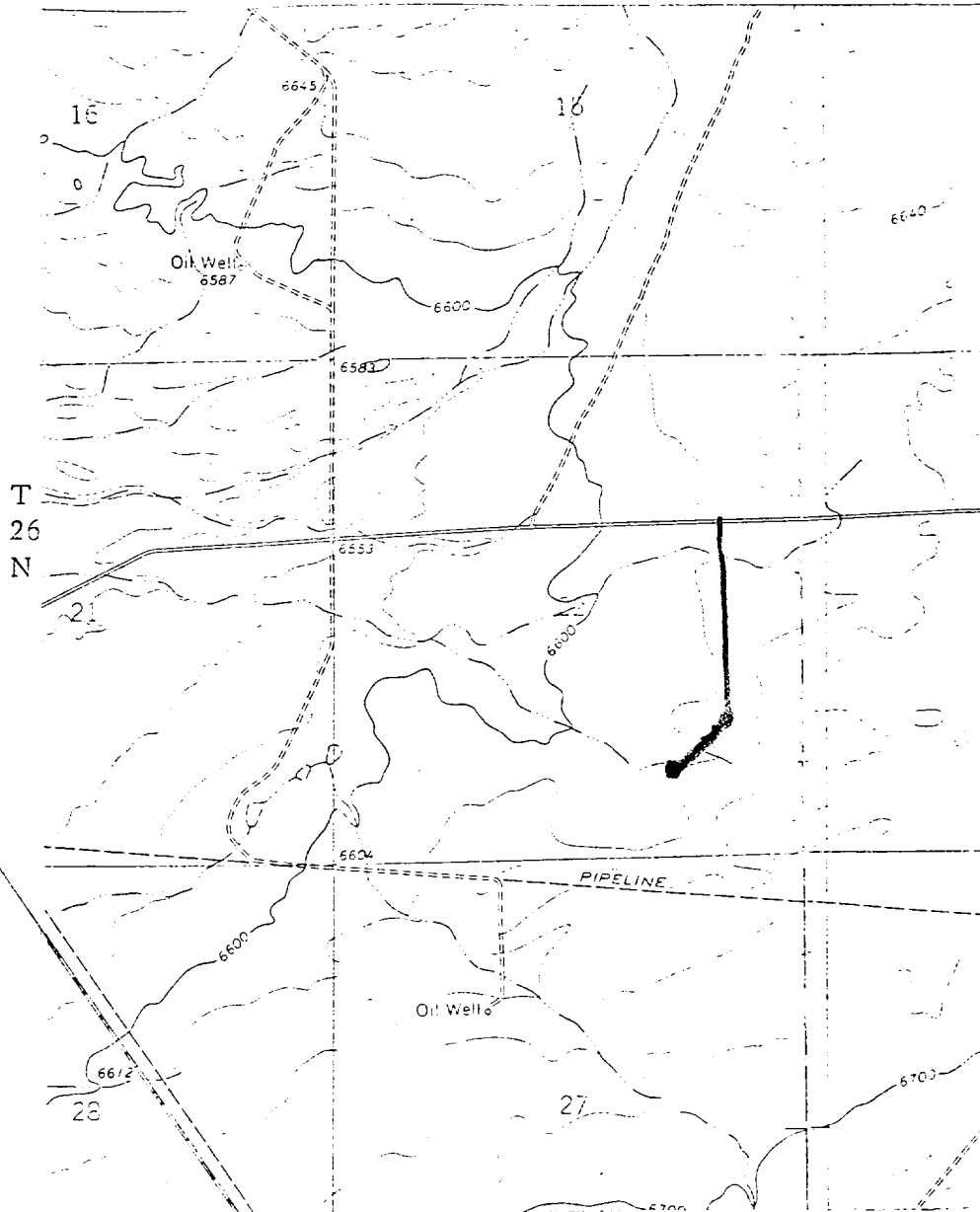
RE

# EL PASO NATURAL GAS COMPANY

Huerfano Unit #177R

SE 22-26-10

R-10-W



MAP #1

## LEGEND OF RIGHT-OF-WAYS

EXISTING ROADS

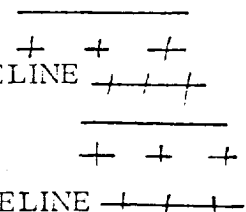
EXISTING PIPELINES

EXISTING ROAD & PIPELINE

PROPOSED ROADS

PROPOSED PIPELINES

PROPOSED ROAD & PIPELINE



R-10-W

