

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

1120'N, 1610'E

At proposed prod. zone

same

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

18 miles south of Gobernado, NM

15. DISTANCE FROM PROPOSED*

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

1120'

16. NO. OF ACRES IN LEASE

2560

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.

500'

19. PROPOSED DEPTH

7510'

20. ROTARY OR CABLE TOOLS

Rotary

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

6732'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"&	4 1/2"	10.5#&	7510'	1381 cu.ft. - 3 stages
7 7/8"		11.6#		

1st stage - 359 cu.ft. to cover Gallup
2nd stage - 580 cu.ft. to cover Mesa Verde
3rd stage - 442 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 29 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

Al. G. Duisco

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:

oh Frank

*See Instructions On Reverse Side

st

DEC 10 1979

U.S. GEOLOGICAL SURVEY
FARMINGTON, COLO.

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2068
SANTA FE, NEW MEXICO 87501Form O-102
Revised 10-1-76

All distances must be from the outer boundaries of the Section

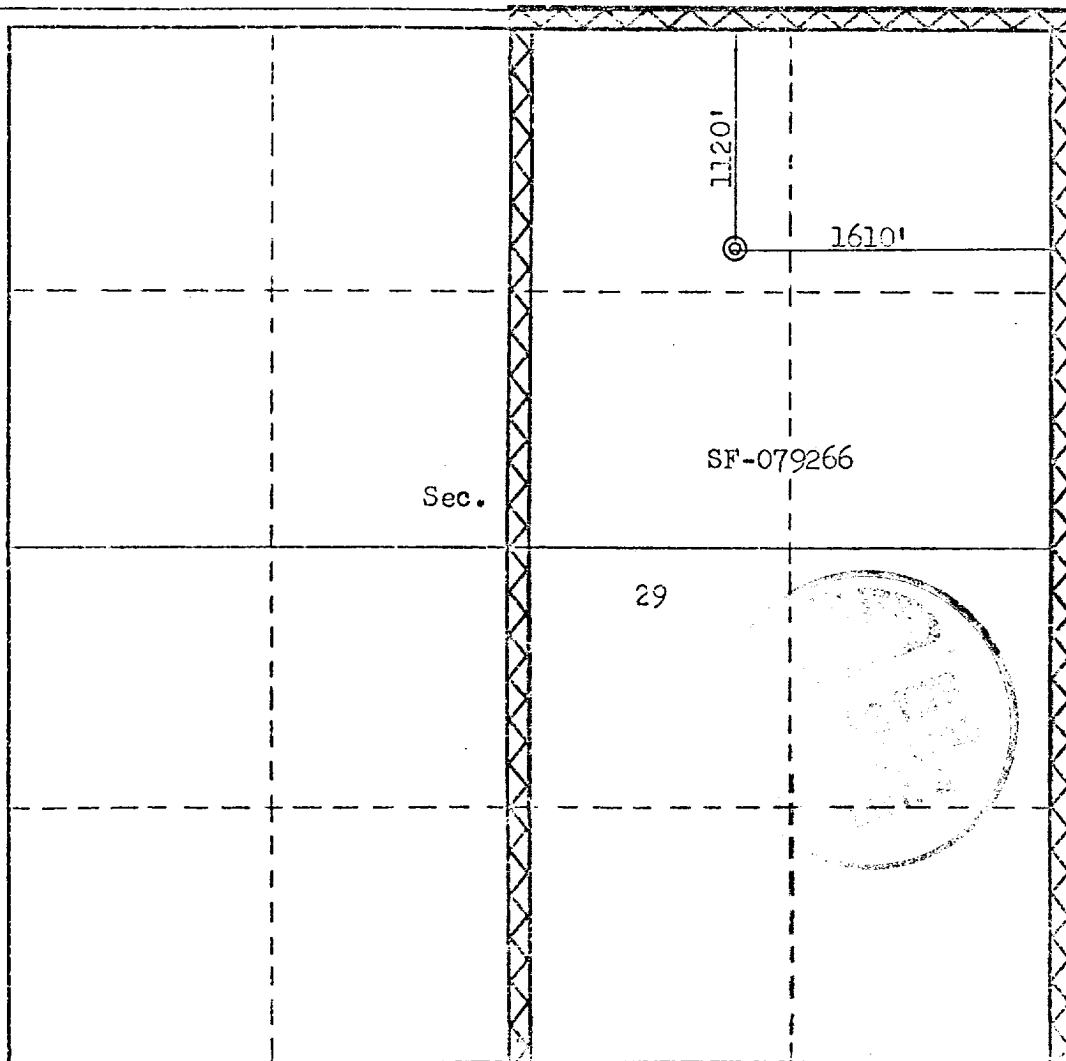
Operator EL PASO NATURAL GAS COMPANY		Lease VAUGHN (SF-079266)		Well No. 31
Unit Letter B	Section 29	Township 26N	Range 6E	County RIO ARriba
Actual Footage Location of Well:				
1120	feet from the	North	line and	1610
			feet from the	East
Ground Level Elev. 6732	Producing Formation DAKOTA		Pool BASIN DAKOTA	Dedicated Acreage: 320.00 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 _____

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.

J. G. Guisco
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.

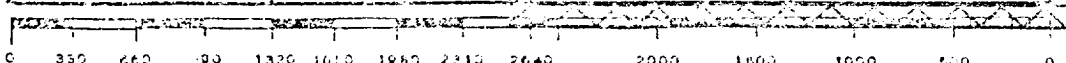
Date Surveyed

October 10, 1979

Registered Professional Engineer
and/or Land Surveyor

John W. K... Jr.
Freddy, Mont. Jr.

Certificate No. **3950**



1120 N 1610 E - 2'

Moved 10c

El Paso NATURAL GAS
COMPANY

P.O. BOX 1000
FARMINGTON, NEW MEXICO 88401
PHONE 562-0204

Well Name Vaughn #31
Location NE 29 26-6
Formation Dak

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

U. S. Forest Service
Billy L. Maybr
Archaeologist

Date
10/3/79
Date

Bureau of Indian Affairs Representative
Barb Ward
Bureau of Land Management Representative

Date
10/3/79
Date

John S. Keller
U. S. Geological Survey Representative - AGREES
TO THE FOOTAGE LOCATION OF THIS WELL.

10/3/79
Date

REASON:

Seed Mixture: T
Equipment Color: Brown

Road and Row: (Same) or (Separate)

Remarks: _____

C.C. to Dave Vilvin
Earl Mealer
John Ahim

Multi-Point Surface Use Plan

Vaughn #31

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 Tapacito Water Hole.
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 sagebrush and juniper growing. Cattle and deer are seen occasionally 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 - Vaughn #31

I. Location: 1120'N, 1610'E, Section 5, T-26-N, R-6-W, Rio Arriba County, NM

Field: Basin Dakota

Elevation: 6742'GR

II. Geology:

A. Formation Tops:	Surface	San Jose	Menefee	4640'
	Ojo Alamo	2270'	Point Lookout	5180'
	Kirtland	2458'	Gallup	6250'
	Fruitland	2750'	Greenhorn	7110'
	Pic.Cliffs	2955'	Graneros	7162'
	Lewis	2970'	Dakota	7310'
	Mesa Verde	4600'	Total Depth	7510'

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.&Grade</u>
	13 3/4"	200'	9 5/8"	36.0# H-40
	8 3/4"	5880'	4 1/2"	10.5# K-55
	7 7/8"	6500'	4 1/2"	10.5# K-55
	7 7/8"	7510'	4 1/2"	11.6# 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 5780' and tool for third stage at 3170'. 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: 7510' 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: 9 5/8" x 10" 2000 casing head with 4 1/2" casing hanger, 10" 2000 x 6" 2000 xmas tree with 2 3/8" tubing hanger. Wellhead representative to set all slips and cut off casing.

V. Cementing:

Surface casing (13 3/4" x 9 5/8") - 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). WOC 12 hours. Test to 600#/30 min.

Operations Plan - Vaughn #31

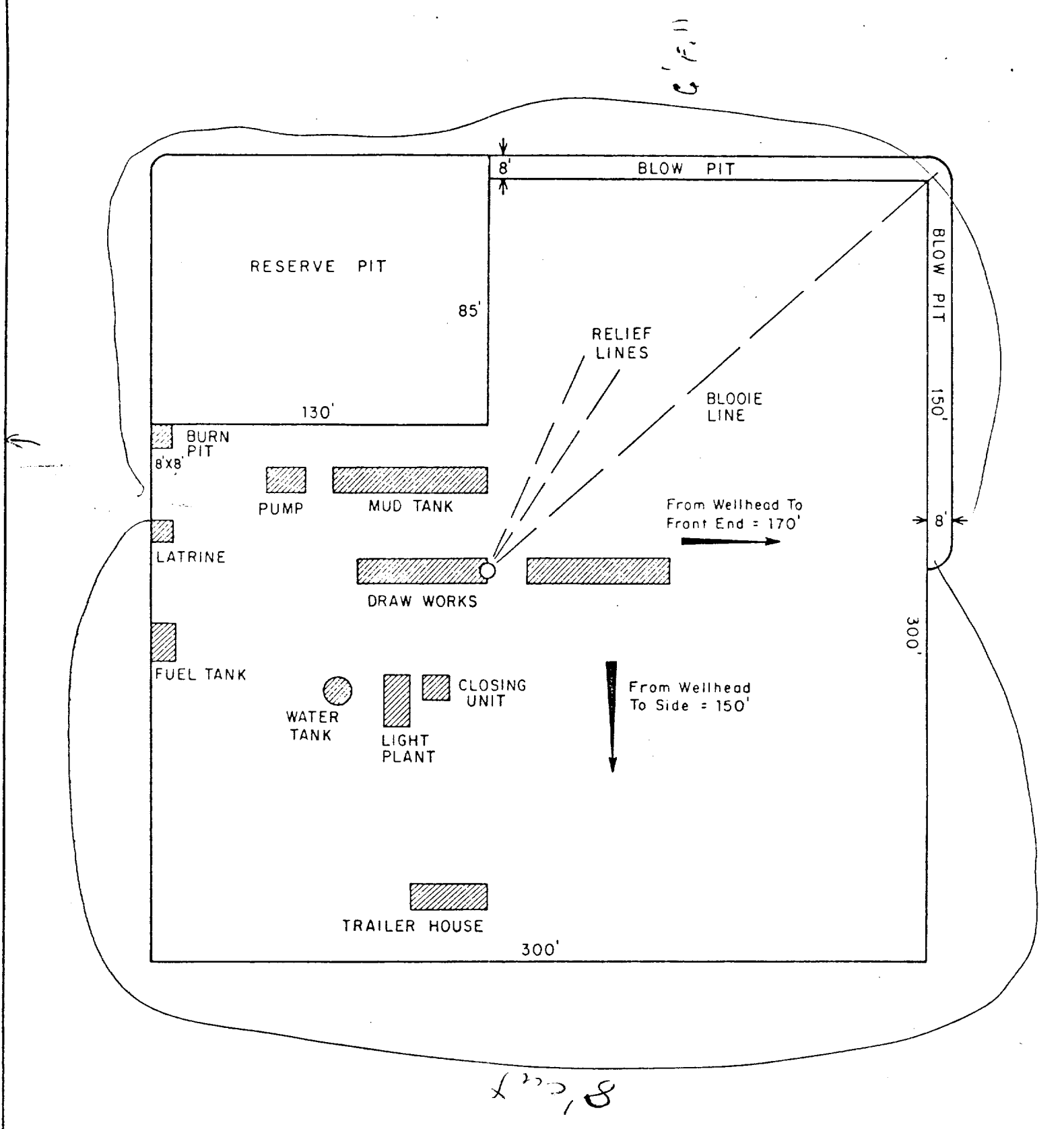
V. Cementing, cont'd.

Production casing - (8 3/4" & 7 7/8" x 4 1/2")

First stage - use 144 sks. of 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride mixed with 8.3 gallons water per sack followed by 80 sks. 50/50 Class "B" Pozmix with 2% gel, 2% calcium chloride and 1/4# fine tuf-plug per cu.ft. (359 cu.ft. of slurry, 25% excess to cover the Gallup).

Second stage - circulate mud for 2 hours, then cement with 358 sks. of 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride and 8.3 gallons of water per sack (580 cu.ft. of slurry, 60% excess to cover the Mesa Verde).

Third stage - circulate mud for 2 hours, then cement using 273 sks. Class "B" Pozmix with 6% gel and 2% calcium chloride mixed with 8.3 gallons water per sack (442 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.



<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left;"> <p>PRINT RECORD</p> <p>PRT. SEP. DATE TO W.O.</p> </div> <div style="text-align: right;"> <p>W.O.</p> </div> </div>				<p>ENG. REC.</p>		<p>DATE</p>	
				<p>DRAWN</p>		<p>J.L.H. 8-16-78</p>	
				<p>CHECKED</p>		<p></p>	
				<p>CHECKED</p>		<p></p>	
				<p>PROJ. APP.</p>		<p></p>	
<p>DESIGN</p>				<p></p>			
<p>W.O.</p>				<p></p>			

e El Paso Natural Gas Company

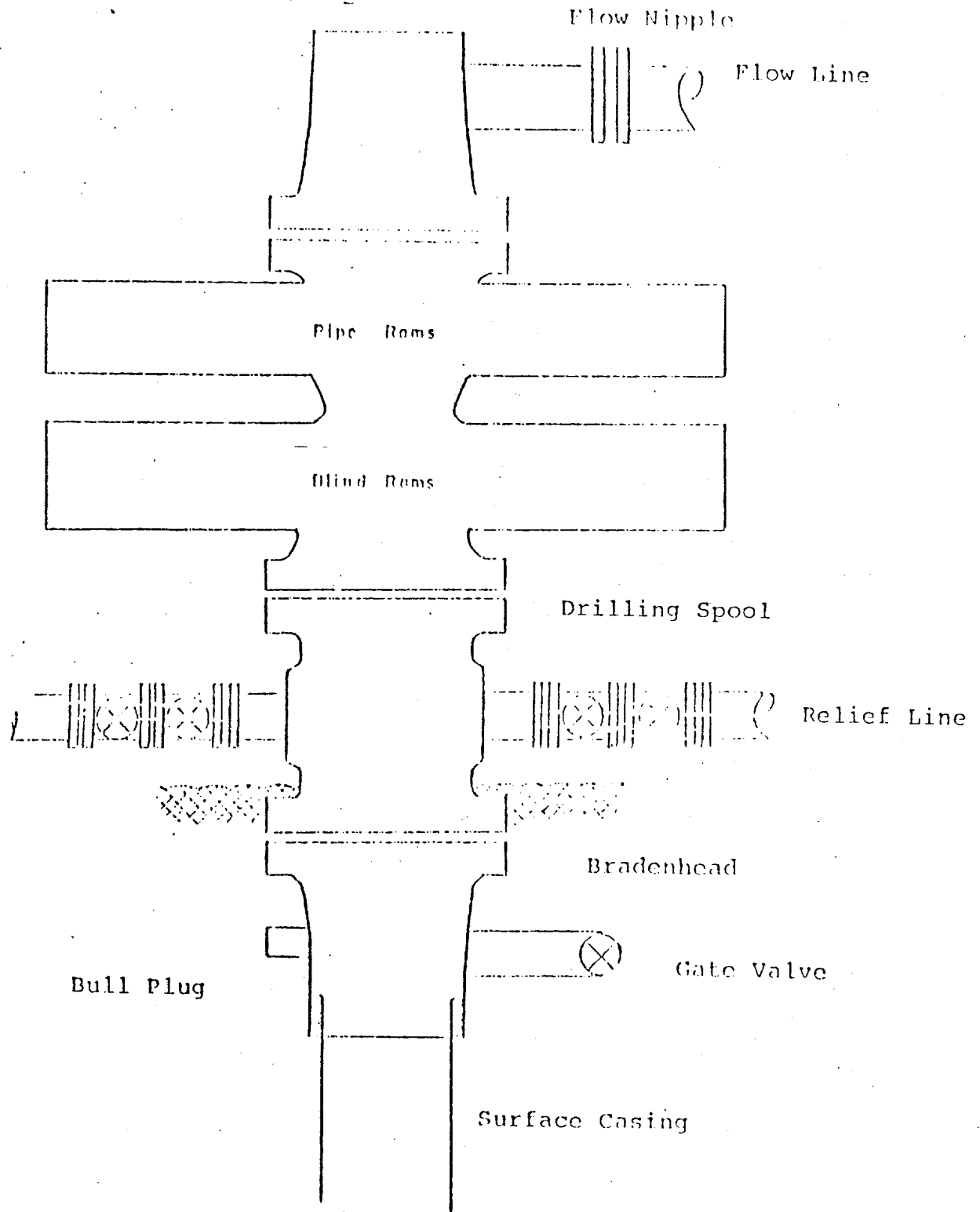
TYPICAL LOCATION PLAT FOR
MESAVERDE OR DAKOTA DRILL SITE

SCALE: 1" = 50'

DWG. NO

REV.

Typical B.O.P. Installation
for Dakota Well

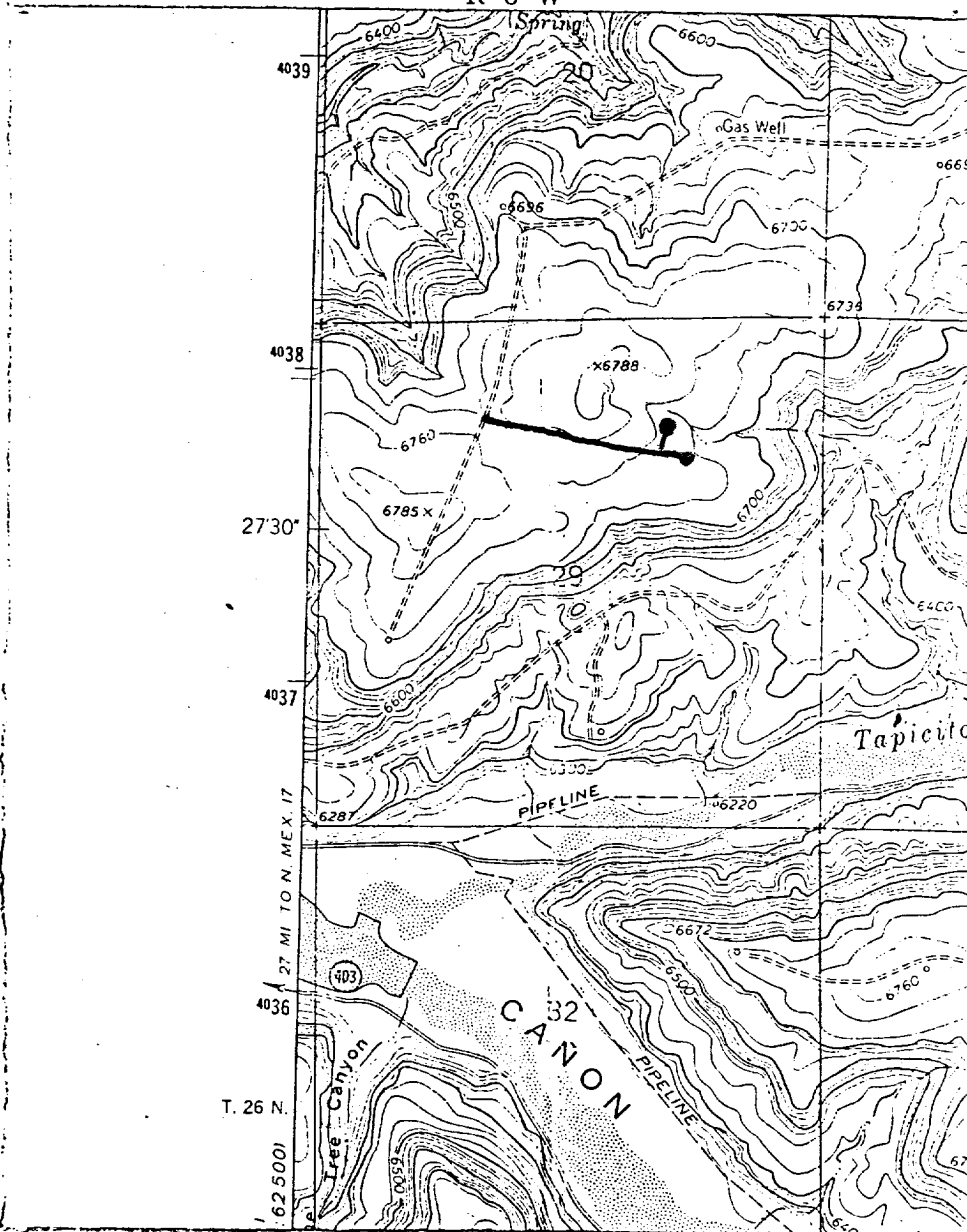


Series 900 Double Gate BOP, rated
at 3000 psi Working Pressure

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.

NE 29-26-6

T
26
N

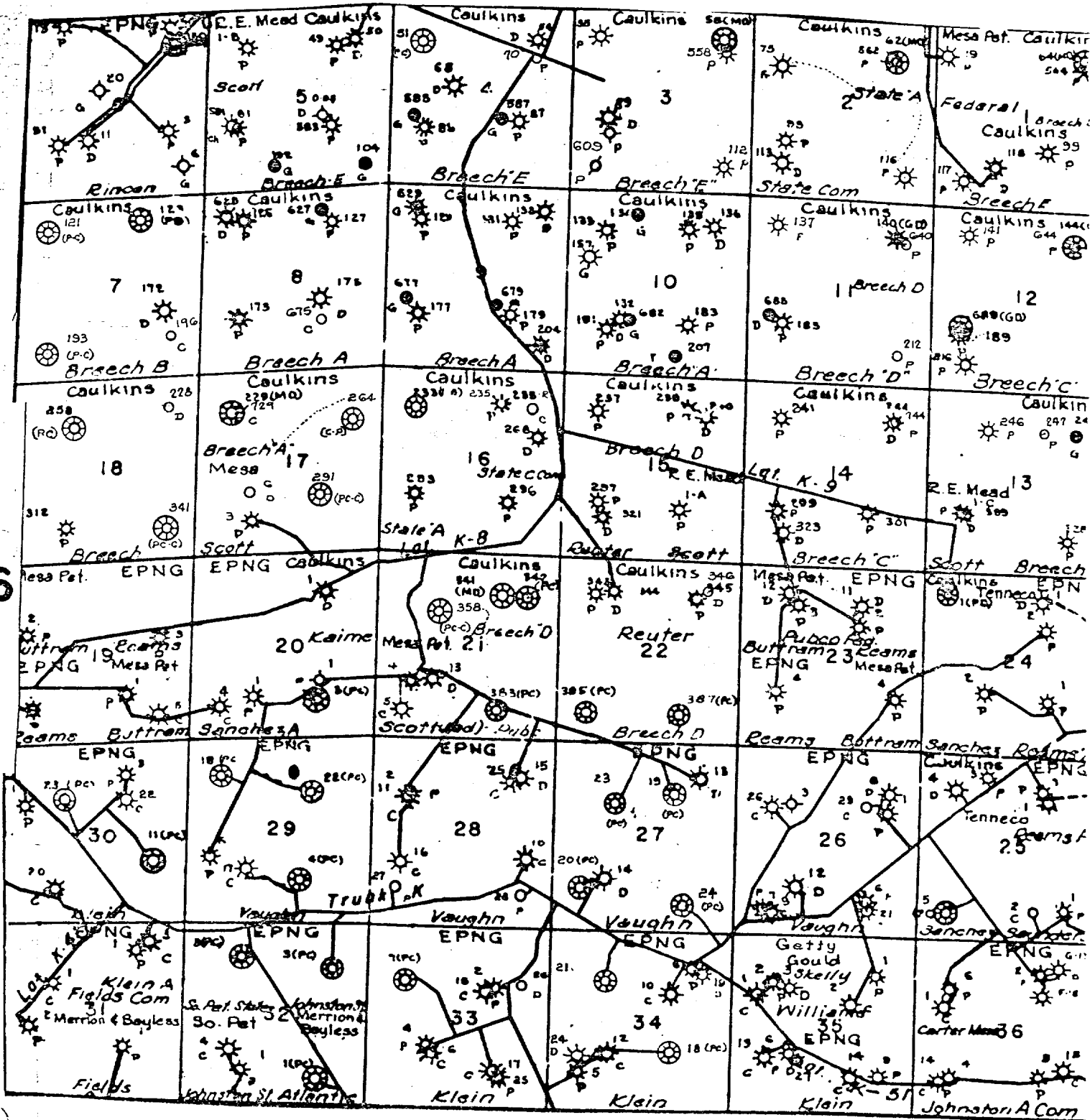


Map #1

PROPOSED ROAD & PIPELINE

EL PASO NATURAL GAS COMPANY
Vaughn #31 - NE 29-26-6

R-6-W



MAP #2

Proposed Location