

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY30-089-22436
5. LEASE DESIGNATION AND SERIAL NO.
SF 078417

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

1915'S, ~~2100~~'W
1930

At proposed prod. zone

same

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

7 miles south of Navajo City, NM

15. DISTANCE FROM PROPOSED*

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

1915'

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

1000'

16. NO. OF ACRES IN LEASE

unit

19. PROPOSED DEPTH

7397'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

W 320.00

20. ROTARY OR CABLE TOOLS

Rotary

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

6207'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#	3300'	304 cu.ft. to cover Ojo Alam
6 1/4"	4 1/2"	10.5#&11.6#	7397'	630 cu.ft. to fill to inter

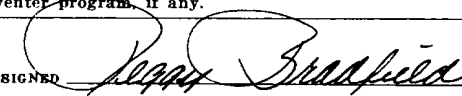
Selectively perforate and sandwater fracture the Dakota formation.

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 W/2 of Section 16 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 James F. Sims TITLE Drilling Clerk DATE April 23, 1980

(This space for Federal or State office use)

PERMIT NO. _____

APPROVAL DATE _____

APPROVED BY _____

TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

NMOCC

*See Instructions On Reverse Side

APPROVED
AS AMENDED
DATE _____JUN 8 1980
James F. Sims
DISTRICT ENGINEERDRILLING CONDITIONS AUTHORIZED ARE
SUBJECT TO THE FOLLOWING ATTACHED
"GENERAL REQUIREMENTS"

ok Smith

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

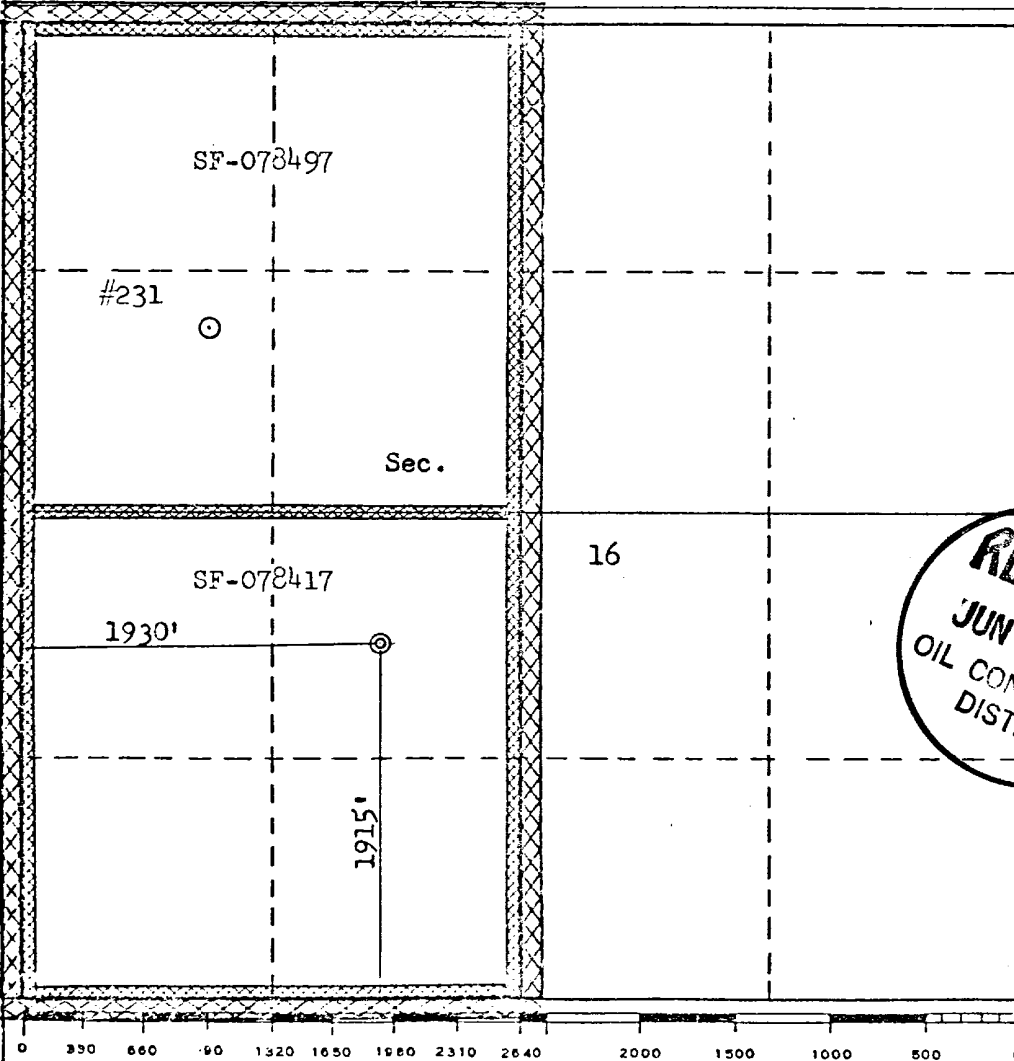
Operator EL PASO NATURAL GAS COMPANY			Lease SAN JUAN 28-7 UNIT (SF-078417)		Well No. 231-E
Unit Letter K	Section 16	Township 28N	Range 7W	County Rio Arriba	
Actual Footage Location of Well: 1915 feet from the South line and 1930 feet from the West line					
Ground Level Elev. 6228	Producing Formation Dakota		Pool Basin Dakota		Dedicated Acreage: 320.00 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. NOTE: THIS PLAT PREPARED TO SHOW MOVED LOCATION. 4-16-80



CERTIFICATION

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

Reggie Bradford
Name
Drilling Clerk

Position
El Paso Natural Gas Co.

Company
April 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 are true and correct to the best of my knowledge and belief.

Date Surveyed

March 23, 1980
Registered Professional Engineer
and/or Land Surveyor

Fred B. Kerr Jr.
Fred B. Kerr Jr.

Certificate No. 3950

1930 W

Un. CLTHa dox.

1930 W

El Paso NATURAL GAS
COMPANY

P.O. BOX 980
FARMINGTON, NEW MEXICO 88401
PHONE (505) 425-2644

Well Name S. J. 28-7 Unit # 231 E

Location _____

Formation _____

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

U. S. Forest Service

Date

Dabney Ford - moved 170' to the
Archaeologist west to avoid site

3/25/80
Date

Bureau of Indian Affairs Representative

Date

Birb Maul
Bureau of Land Management Representative

3/25/80
Date

Barbara J. Conklin
U. S. Geological Survey Representative - AGREES
TO THE FOOTAGE LOCATION OF THIS WELL.

3/25/80
Date

REASON:

Seed Mixture: II

Equipment Color: Blown

Road and Row: (Same) or (Separate)

Remarks: _____

C.C. to Dave Vilvin
Earl Mealer
John Ahlm

Multi-Point Surface Use Plan
San Juan 28-7 Unit #231E

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 Delgadito Canyon 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 pinon, sage 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.



D. R. Read
Project Drilling Engineer

Operations Plan
San Juan 28-7 Unit #231 E

I. Location: 1915'S, 2100'W, Section 16, T-28-N, R-7-W, Rio Arriba County, NM

Field: Basin Dakota

Elevation: 6207'GL

II. Geology:

A. Formation Tops:	Surface	San Jose	Menefee	4660'
	Ojo Alamo	1966'	Point Lookout	5100'
	Kirtland	2077'	Gallup	6293'
	Fruitland	2599'	Greenhorn	7048'
	Pic.Cliffs	2866'	Graneros	7107'
	Lewis	3101'	Dakota	7248'
	Mesa Verde	4508'	Total Depth	7397'

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

C. Coring Program: none

D. Natural Gauges: 4500', 4650', 5090', 6280', 7040', 7095', 7235' and at TD.
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 3300'. 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"	3300'	7"	20.0# K-55
	6 1/4"	6500'	4 1/2"	10.5# K-55
	6 1/4"	7397'	4 1/2"	11.6# K-55

B. Float Equipment: 9 5/8" surface casing - Pathfinder Texas Pattern guide shoe (Part No.2006-1-012)

7" intermediate casing - Pathfinder guide shoe (Part No. 2003-1-007)
and Howco self-fill insert float valve (Price Ref. 36A & 37)
5 Pathfinder stabilizers (Part No. 107-10) one every other joint above shoe. Run float two joints above shoe.

4 1/2" production casing - Pathfinder guide shoe (Part.#2003-1-000)
and Larkin flapper type float collar (fig. 404 M&F)

C. Tubing: 7397' of 1 1/2", 2.9#, J-55 10rd 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: 3000 psi test tree. Wellhead representative to set all slips and cut off casing.

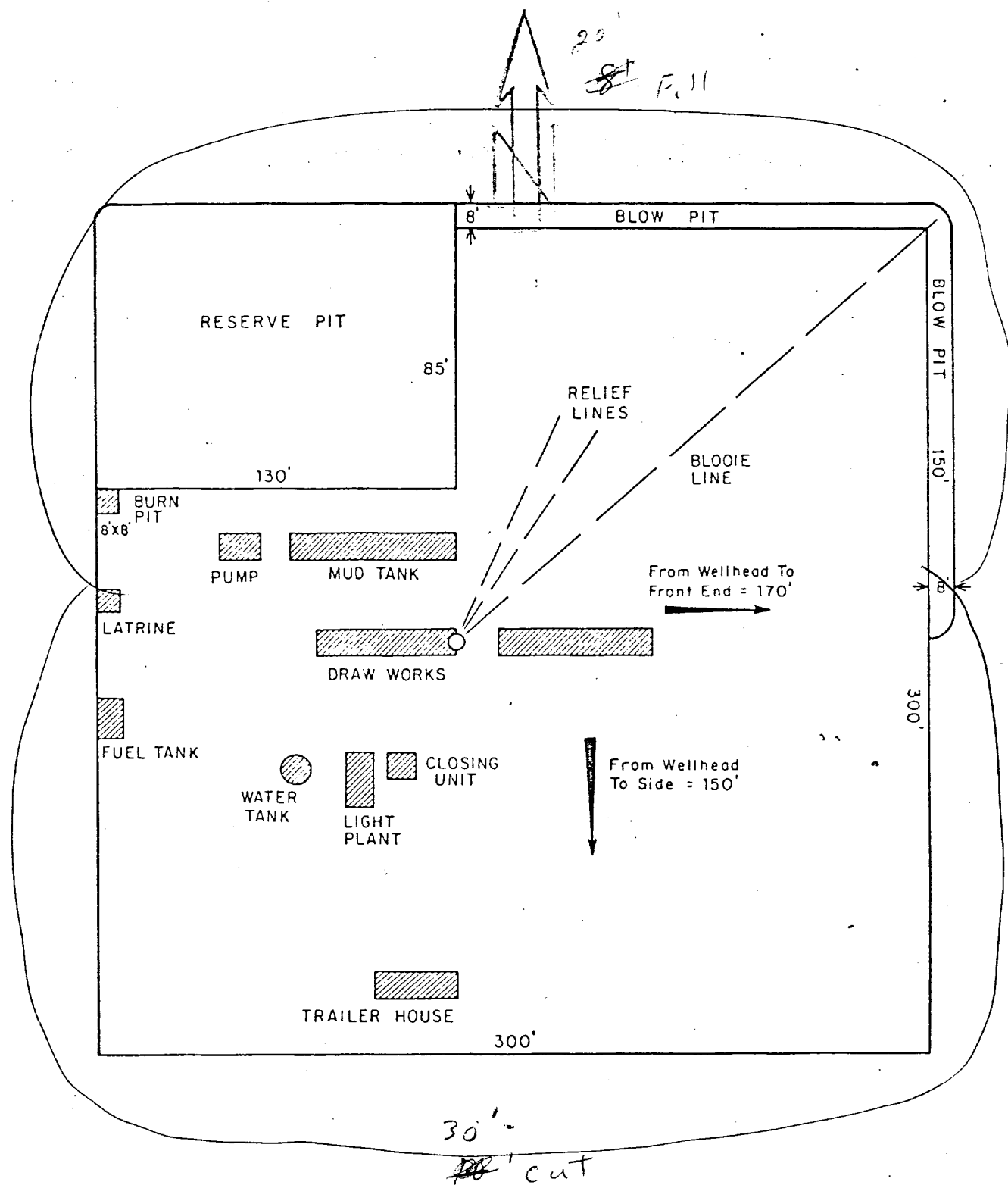
Operations Plan - San Juan 28-7 Unit #231E

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 115 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 (304 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" production casing - precede cement with 40 bbls. of gel water (4 sks. gel) cement with 235 sks. of Class "B" with 8% gel, 1/4 cu.ft. fine gilsonite per sack and 0.4% HR-7, followed by 100 sks. of Class "B" with 1/4# fine tuf-plug per sack and 0.4% HR-7 (630 cu.ft. of slurry, 50% excess to fill to intermediate casing). Run temperature survey at 8 hours. WOC 18 hours.



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

 El Paso Natural Gas Company

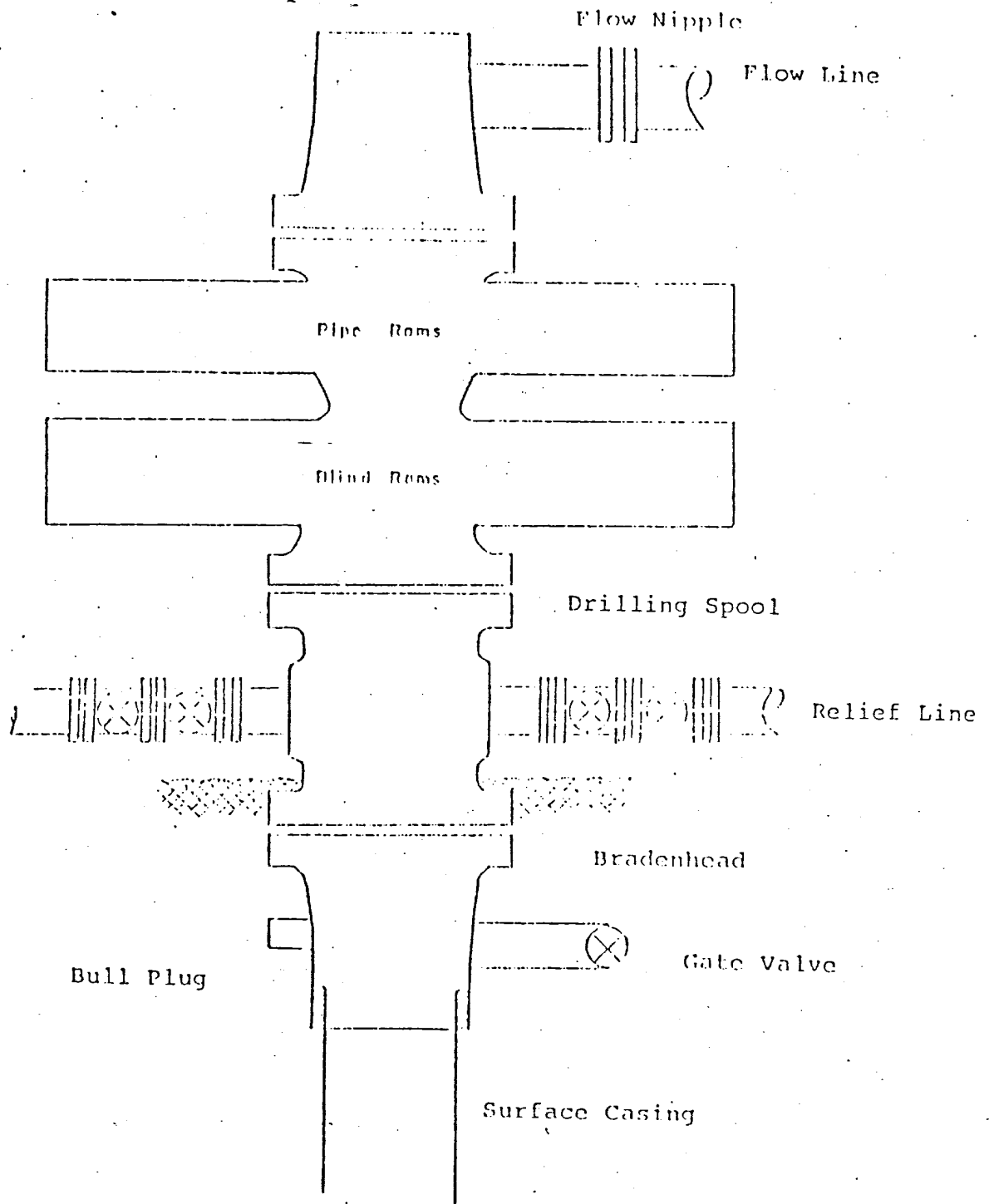
TYPICAL LOCATION PLAT FOR
MESAVERDE OR DAKOTA DRILL SITE

SCALE: 1" = 50'

DWG.
NO.

REV

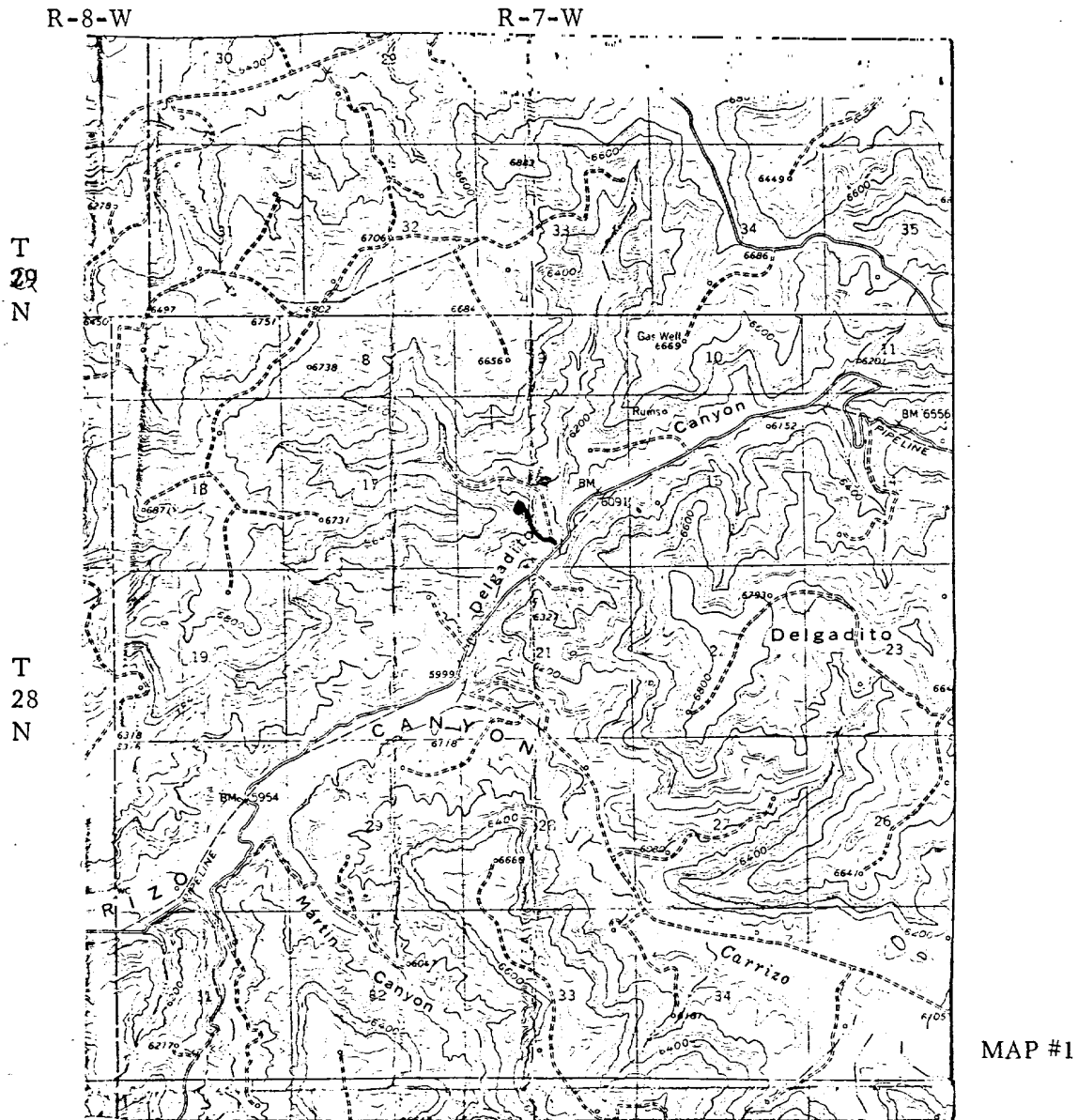
Typical B.O.P. Installation
for Dakota Well



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.

EL PASO NATURAL GAS COMPANY
 San Juan 28-7 Unit #231E
 SW 16-28-7



LEGEND OF RIGHT-OF-WAYS

EXISTING ROADS —————

EXISTING PIPELINES + + +

EXISTING ROAD & PIPELINE + + + +

PROPOSED ROADS —————

PROPOSED PIPELINES + + +

PROPOSED ROAD & PIPELINE + + + +

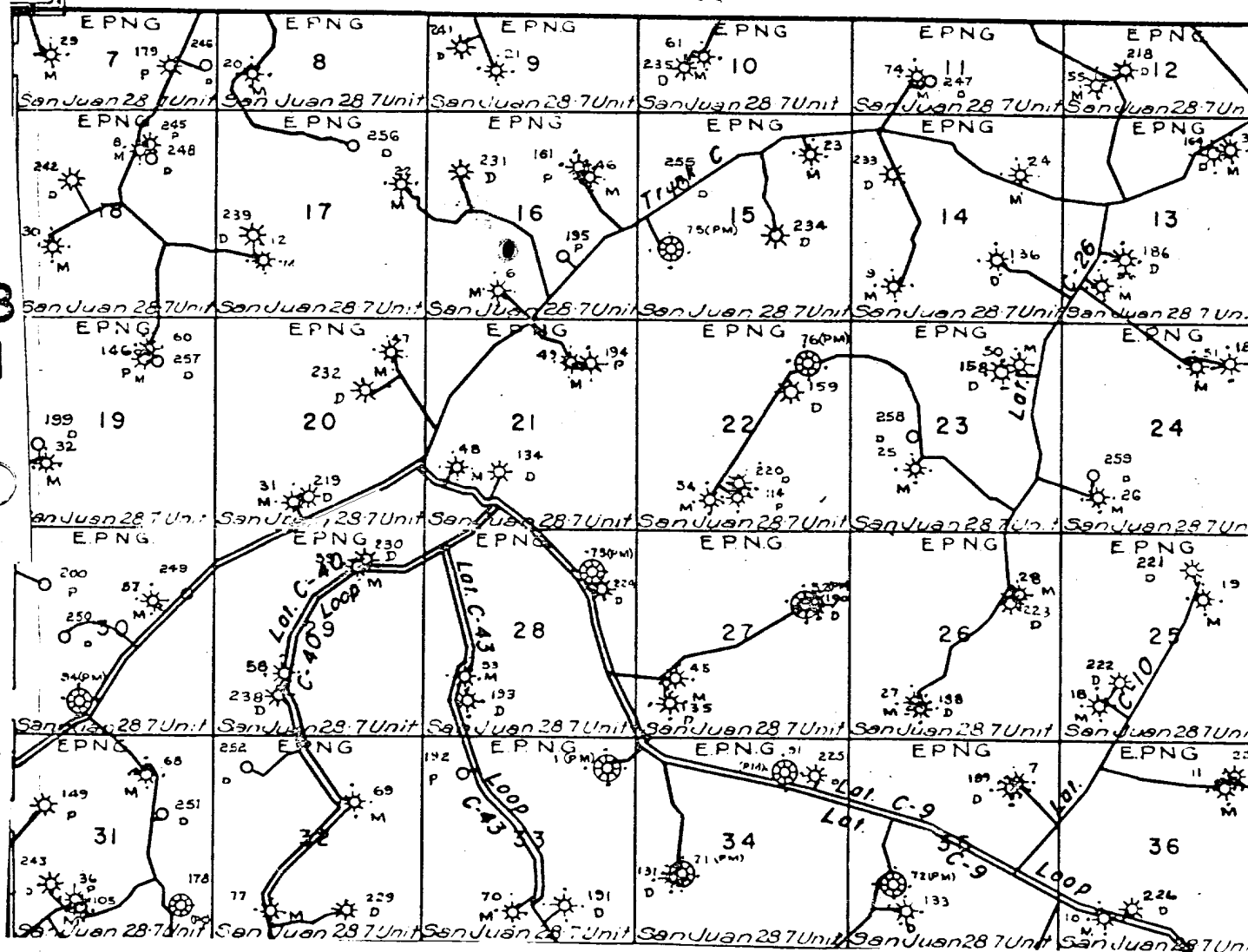
EL PASO NATURAL GAS COMPANY

San Juan 28-7 Unit #231E

SW 16-28-7

R-7-W

T
28
N



MAP #2

Proposed Location ●