

September 20, 1979

It is intended to locate the Huerfano Unit #271, Dakota well, at 1180' from the North line and 1800' from the West line of Section 18, T-26-N, R-10-W, San Juan County, New Mexico.

An Application for Permit to Drill was filed and approved by the U.S. Geological Survey during 1975. The location was built, but the well was not drilled and the Application was cancelled. You will notice the proposed location is only 140' from the center line which cuts the North half of Section 18. This is not in accordance with the 200' rule which is now being adhered to but was not being enforced during 1975.

If this well is move in accordance with the 200' rule, a new location will have to be built, which means additional expenses in building a new location and restoring both the old and new locations.

L. A. Aimes

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Project Drilling Engineer

LAA:pb

Multi-Point Surface Use Plan

Huerfano Unit #271

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 #1.
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 flat lands and rolling hills with grass and sagebrush growing. Antelope, deer and cattle are occasionally seen on the 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.

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Project Drilling Engineer

Operations Plan - Huerfano Unit #271

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.

Production casing -

First stage (4 1/2" x 7 7/8") - use 120 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. (320 cu.ft. of slurry, 50% excess to cover the Gallup).

Second stage (4 1/2" x 8 3/4") - circulate mud for 2 hours, then cement with 330 sks. of 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride and 8.3 gallons of water per sack (535 cu.ft. of slurry, 60% excess to cover the Mesa Verde).

Third stage (4 1/2" x 8 3/4") - circulate mud for 2 hours, then cement using 385 sks. 65/35 Class "B" Pozmix with 6% gel and 2% calcium chloride mixed with 8.3 gallons water per sack (624 cu.ft. of slurry, 60% excess to cover the Ojo Alamo). Run temperature survey on top stage only at 8 hours. WOC 18 hours.

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Operations Plan - Huerfano Unit #271

I. Location: 1180'N, 1800'W, Section 18, T-26-N, R-10-W, San Juan County, NM

Field: Basin Dakota

Elevation: 6464'GR

II. Geology:

A. Formation Tops:	Surface	Nacimiento	Menefee	---
	Ojo Alamo	900'	Point Lookout	4335'
	Kirtland	1010'	Gallup	5457'
	Fruitland	1650'	Greenhorn	6294'
	Pic.Cliffs	1894'	Graneros	6357'
	Lewis	2060'	Dakota	6458'
	Mesa Verde	3633'	Total Depth	6580'

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

C. Coring: none

D. Samples:

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"	32.3# H-40
	8 3/4"	4890'	4 1/2"	10.5# J-55
	7 7/8"	6500'	4 1/2"	10.5# J-55
	7 7/8"	6580'	4 1/2"	11.6# J-55

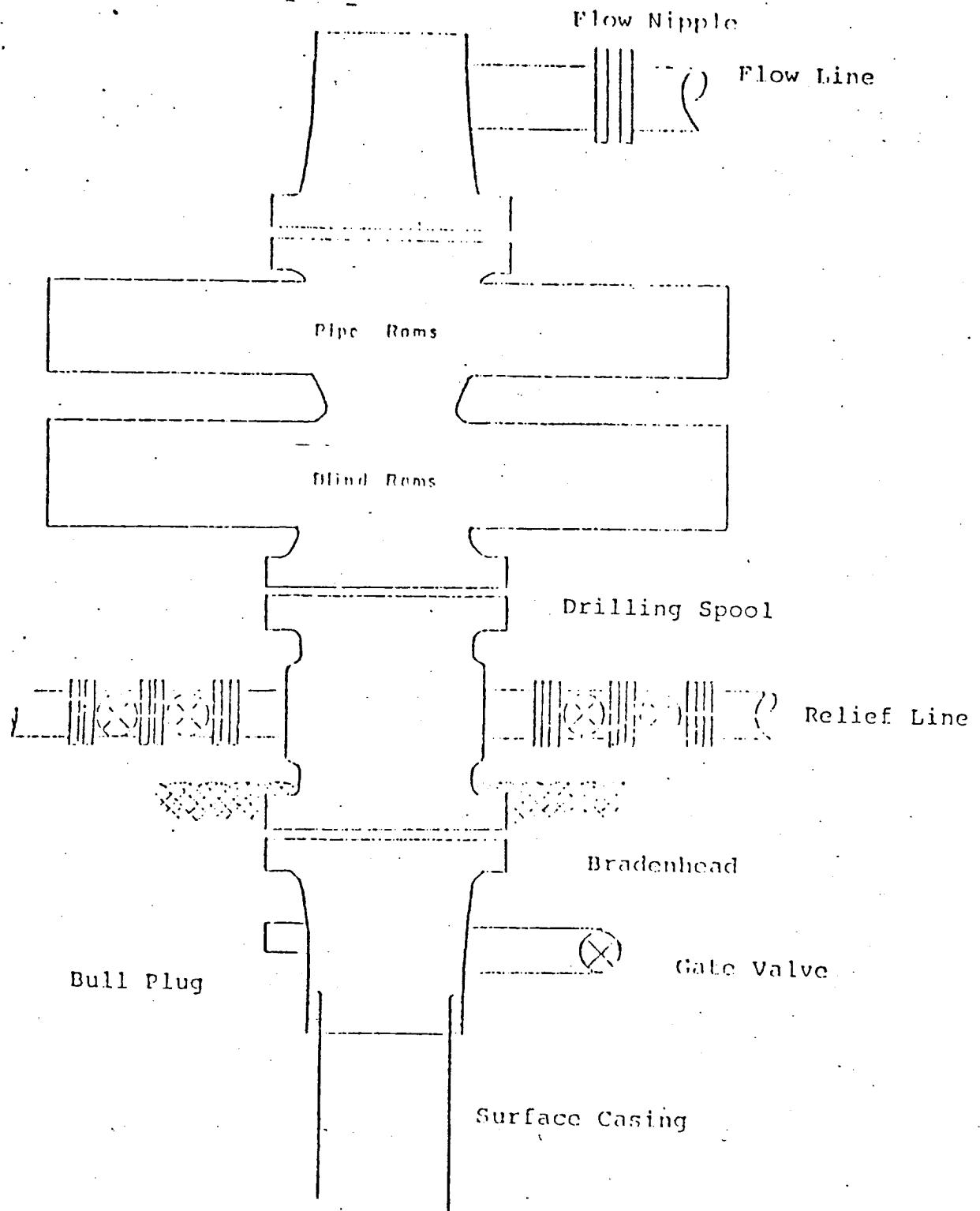
B. Float Equipment: 9 5/8" surface casing - guide shoe

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 4790' and tool for third stage at 2160'.
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: 6580' of 2 3/8", 4.7#, J-55 tubing with a common pump
seating nipple and an expendable check valve with drill type guide.

D. Wellhead Equipment: 10" 3000 x 9 5/8" casing head
with 10" x 4 1/2" casing hanger, 10" 3000 x 6" 3000
xmas tree. Wellhead representative to set all slips.

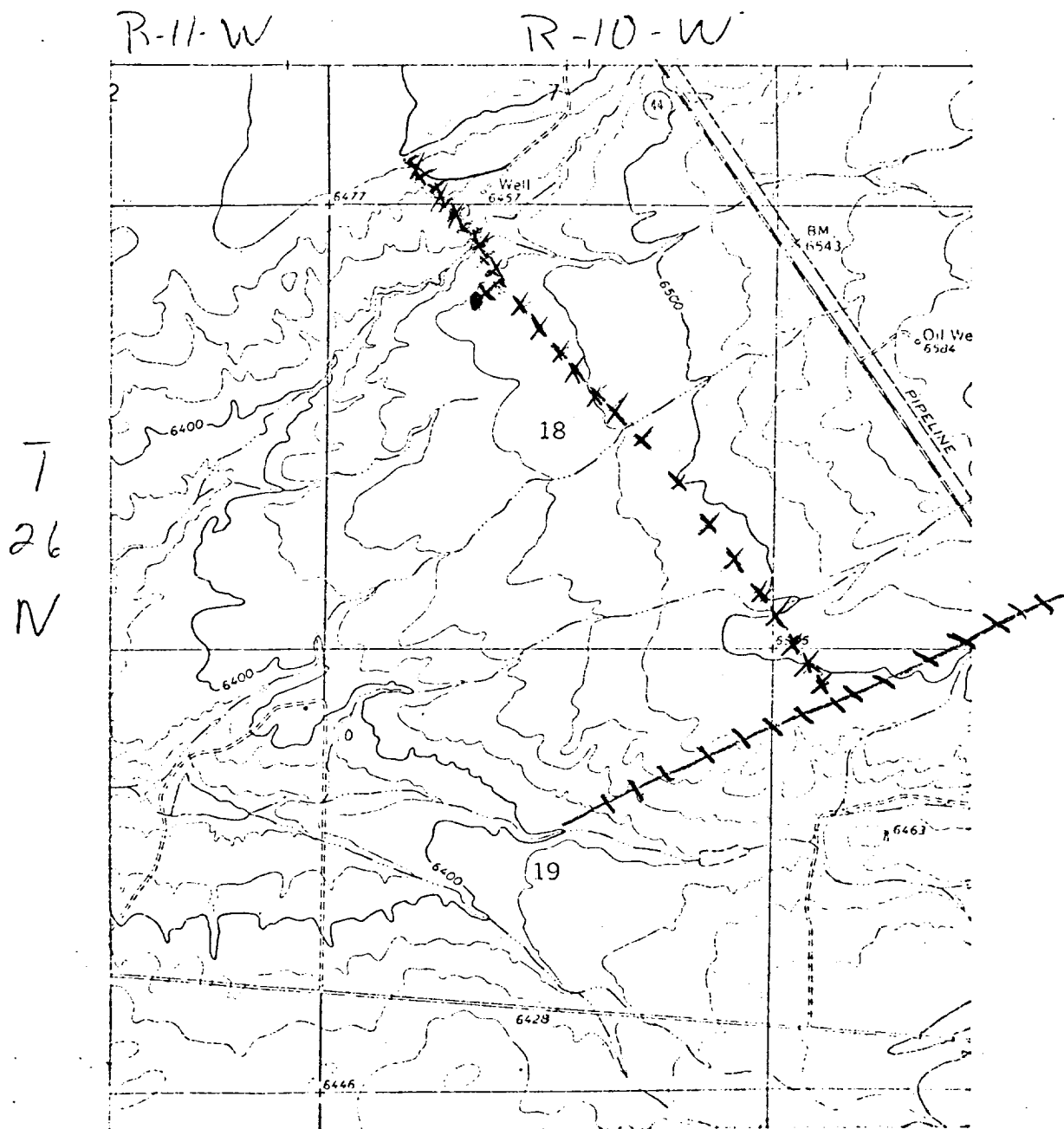
Typical B.O.P. Installation for : Dakota : Well



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.

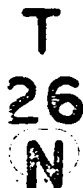
Huerfano Unit No 271
NE NW Sec 18, T-26-N, R-10-W



LEGEND OF RIGHT-OF-WAYS

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

R-10-W



Proposed Location