SIZE OF HOLE

3/4"

13 3/4"

6 1/4"

8_

23.

24.

SIZE OF CASING

4 1/2"liner

9 5/8"

7"

SUBMIT IN TRIPLICATE*

(Other instructions on

Form approved. Budget Bureau No. 42-R1425.

UNITED STATES DEPARTMENT OF THE INT

| DEPARTMEN' | T OF THE I | NTERIOR | reverse s | side) | 30-039-2/937 5. LEASE DESIGNATION AND SERIAL NO. SF 079382 | | |
|--|-----------------------------|---------------------------------------|----------------|-----------|--|--|--|
| APPLICATION FOR PERMIT | TO DRILL, | DEEPEN, OR | PLUG E | BACK | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME | | |
| 1a. TYPE OF WORK | | · · · · · · · · · · · · · · · · · · · | | | | | |
| DRILL 😡 | DEEPEN | □ P | LUG BA | CK 🗌 | 7. UNIT AGREEMENT NAME | | |
| b. TYPE OF WELL OIL GAS WELL WELL OTHER | | SINGLE Z | MULTIF ZONE | PLE | San Juan 30-6 Unit | | |
| 2. NAME OF OPERATOR | | <u></u> | | | Can Tuan 20 C Hait | | |
| El Paso Natural Gas Con | an an s | | | | San Juan 30-6 Unit | | |
| 3. ADDRESS OF OPERATOR | ipany | | | | 703 | | |
| DO Doy 000 Earmington | NIM OTAL | 0.1 | | | 78A 10. field and pool, or wildcat | | |
| PO Box 990, Farmington, 4. LOCATION OF WELL (Report location clearly and | in accordance with | U L th any State require | ments.*) | | | | |
| At surface | | | | | Blanco Mesa Verde | | |
| 1470'S, 18 | 325°E | | | | 11. SEC., T., B., M., OR BLE. AND SURVEY OR AREA | | |
| At proposed prod. zone | Sec. 25, $T-30-N$, $R-7-W$ | | | | | | |
| same | | | | | NMPM | | |
| 14. DISTANCE IN MILES AND DIRECTION FROM NEA | REST TOWN OR POS | T OFFICE* | | | 12. COUNTY OR PARISH 13. STATE | | |
| 21 miles East of Blanco | , NM | | | | Rio Arriba NM | | |
| 15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST | | 16. NO. OF ACRES | IN LEASE | | F ACRES ASSIGNED | | |
| PROPERTY OR LEASE LINE, FT. (Also to nearest drig, unit line, if any) | 1470' | Un | it | 10 11 | 320.00 | | |
| 18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, | | 19. PROPOSED DEPT | н | 20. котан | RY OR CABLE TOOLS | | |
| OR APPLIED FOR, ON THIS LEASE, PT. | 2400' | 58 | 09' | Rotar | У | | |
| 21. ELEVATIONS (Show whether DF, RT, GR, etc.) | | · | | · | 22. APPROX. DATE WORK WILL START* | | |
| 6254 ' GL | | | | | | | |
| 00 | | | | | 1 | | |

QUANTITY OF CEMENT

296 cu.ft.to cover Ojo Alan

438 cu.ft.to fill to 3325'

224 cu.ft. to circulate

Selectively perforate and sandwater fracture the Mesa Verde formation.

PROPOSED CASING AND CEMENTING PROGRAM

SETTING DEPTH

200'

3475**'**

3325-5809'

WEIGHT PER FOOT

32.3#

20.0#

10.5#

A 3000 psi WP and 6000 psi test double gate preventer equipped with blind and pipe rams will be used for blow out prevention well.

This gas is dedicated.

The E/2 of Section 25 is dedicated to this well.

DIST. IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive cone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical deaths. Give blowout preventer program, if any.

| SIGNED D. J. Jusce | TITLE | Drilling Clerk | DATE9=14-78 |
|--|-------|----------------|--------------|
| (This space for Federal or State office use) | | APPROVAL DATE | ECEIVED |
| APPROVED BY | TITLE | | SEP 1 8 1978 |

of Grank

U. S. GEOLOGICAL SURVEY DURANGO, COLO,

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-102 Supersedes C-128 Effective 1-4-05 WELL LOCATION AND ACREAGE DEDICATION PLAT

| Operator | | An anetences mast be | | duries of the Se | ction. | | | |
|--|--|---|--|-------------------|---------------------|---|--|--|
| • | TURAL GAS COM | PANY | CAM TITANT | 30 4 testa | / (CE OTO 200) | Well Ho. | | |
| Unit Letter | Section | Township | Italije | 30-6 UNIT | | 78A - | | |
| J | 25 | 30N | 7W | 1 | IO ARRIBA | | | |
| Actual Footage Loc | ution of Well: | | | | | | | |
| 1470 | | South line and | 1825 | feet from | _{the} East | Hino_; | | |
| Ground Level Elev. 6254 | Producing For Mesa V | | Peol | Lanco Mesa | . Verde | edicated Acreage: | | |
| 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 that dated by co | n one lease of d ommunitization, u | ifferent ownership is nitization, force-pool | dedicated to the | well, have | the interests of a | ell owners been consoli- | | |
| Yes | No If a | swer is "yes," type o | of consolidation | Unitiza | ation | | | |
| If answer: | • | | • | | | | | |
| this form if | necessary.) | owners and tract desc | riptions which h | ave actually | been consolidate | d. (Use reverse side of | | |
| | • | d to the well until al | interests have | heen consol | idated (by some | nitization, unitization, | | |
| forced-pool | ing, or otherwise) | or until a non-standar | d unit, eliminati | ng such inte | rests, has been ar | oproved by the Commis- | | |
| sion. | _ | | | | rooto, nas been a | proved by the Commis- | | |
| r | | | XXXXXXXX | XXXXXX | | · · · · · · · · · · · · · · · · · · · | | |
| | i | N N | l | | Ä ° | ERTIFICATION | | |
| | i : | . 🕅 | . • 1 | • | × | | | |
| | i . | × | , 1 | #78 | IYI | ify that the information con- | | |
| | ı | X | | _ | ľV | is true and complete to the owledge and belief. | | |
| | 1. | Ø | i · | Ò | | Sowiedge and better. | | |
| | 1 | X | | * | X //. // | · Durse | | |
| | - + | | | | Name | | | |
| | 1 | X | i i | • | Drilling | Clerk | | |
| | 1 | - 🛭 | | • | X Position | | | |
| | · 1 | X . | i i | • | Company | Natural Gas Co. | | |
| | i | × | | • | KXI | r 14, 1978 | | |
| | 1 | | | 80 | Dute | | | |
| | 1 | . 🐰 | | (D) | Ø | | | |
| | | Sec X 25 | 1 | -70 | - ⊠ | | | |
| | ! | | i kati | 1010 | X | | | |
| • | 1 | · 🛭 | \$F-079382 | COW. | KX . | tify that the well-location | | |
| | ŀ | . 🕅 | | 3/ | IXI | plat was plotted from field al surveys made by me or | | |
| | l | × | | 215-25-20 V | W . | ervision, and that the same | | |
| · | l | × | CONTRACTOR DE LA CONTRA | The Market of the | KX KX | correct to the best of my | | |
| • | 1 | 810.42 | ○ | 325! | - knowledge ond | · · | | |
| _ i _ | -+ | | | | -13 | • | | |
| | 1 | K≱ | i | | Ø | | | |
| | 1 | Ø | | | Date Surveyed | | | |
| | | ⋈ | | | Septembe | E 14501.989 | | |
| | 1 | N e | <u> </u> | | Heghalf & | ATE STATE | | |
| | 1 | XX | 1 | | and offered any | (Ma) 1 31 | | |
| | I . | M · · | 1 | | NJ LINE | 対ける | | |
| BASI VIANA | | | | *** | Fred | Kernedr. | | |
| 240 | PARTIE AND THE PARTIE | Mary Adocody | ~~~ | | OCC B | MEER. 12. | | |
| 330 660 990 | . 1350 1980 1880 | 2310 2840 2000 | 1500 1000 | 800 | 3950 | | | |



P. O. BOX 990 FARMINGTON, NEW MEXICO 87401 PHONE: 505-325-2841

Multi-Point Surface Use Plan San Juan 30-6 Unit #78A

- 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 San Juan 30-6 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 rolling hills and sagebrush flats with sagebrush and cedar growing. Cattle graze 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. C. Walker

Project Drilling Engineer

Operations Plan San Juan 30-6 Unit #78A

I. Location: 1470'S, 1825' E, Section 25, T-30-N, R-7-W, Rio Arriba County, 1

Field: Blanco Mesa Verde Elevation: 6254'GL

II. Geology:

| Α. | Formation Tops: | Surface | San Jose | Lewis | 3275' |
|----|-----------------|------------|----------|---------------|---------------|
| | | Ojo Alamo | 2183' | Mesa Verde | 4946' |
| | | Kirtland | 2378' | Menefee | 50581 |
| | | Fruitland | 2868' | Point Lookout | 5360 ' |
| | | Pic.Cliffs | 3188' | Total Depth | 5809 ' |

- B. Logging Program: GR-Ind. and GR-Density at Total Depth.
- C. Coring Program: none
- D. Natural Gauges: 4936', 5048', 5350' 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 3475'. Gas from intermediate casing to Total Depth.

IV. Materials:

| Α. | Casing Program: | Hole Size | <u> </u> | Casing Size | Wt.&Grade |
|----|-----------------|-----------|--------------------|-------------|-------------|
| | | 13 3/4" | 200' | 9 5/8" | 32.3 # H-40 |
| | | 8 3/4" | 3475 ' | 7" | 20.0# K-55 |
| | | 6 1/4" | 3325-5809 ' | 4 1/2" | 10.5# K-55 |

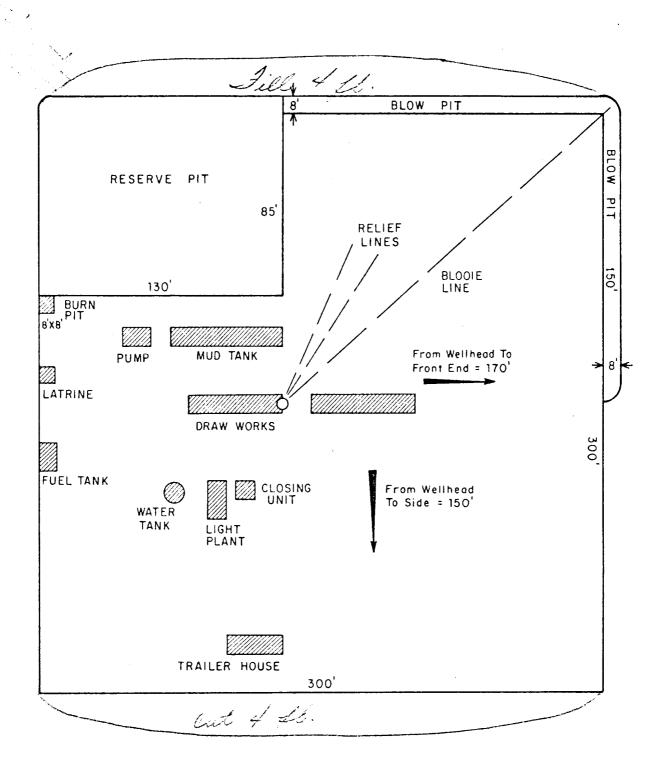
B. Float Equipment: 9 5/8" surface casing - Pathfinder guide shoe (Part #2006-1-012).

7" intermediate casing - Pathfinder guide shoe (Part #1003-1-007) and Pathfinder self-fill insert float valve (Part #2010-6-007), 5 Pathfinder stabilizers (Part #107-10) every other joint above shoe. Run float two joints above shoe.

- 4 1/2" liner 4 1/2" liner hanger with neoprene packoff. Pathfinder geyser shoe (Part #2017-1-050) and Larkin flapper type float collar (fig. 404 M&F).
- C. Tubing: 5809' of 2 3/8", 4.7#, J-55 8rd EUE tubing with a common pump seating nipple one joint above bottom. Tubing will be open ended.
- D. Wellhead Equipment: 10" 900 x 9 5/8" casing head. 10" 900 x 6" 900 xmas tree.

V. <u>Cementing</u>:

- 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 110 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 (296 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" liner precede cement with 20 barrels of gel water (2 sks. gel) Cement with 315 sks. of 50/50 Class "B" Poz with 2% gel, 0.6% Halad-9, 6.25# gilsonite plus 1/4# Flocele per sack (438 cu.ft. of slurry, 70% excess to circulate liner). WOC 18 hours.



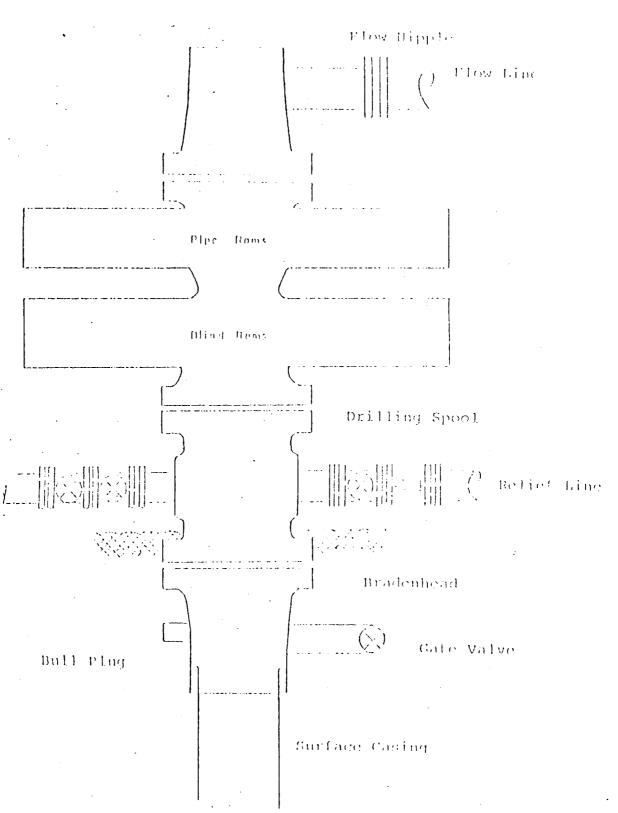
| | | | | | ENG. REC. | | DATE |
|--------------|------|------|-------------|------|------------|--------|---------|
| | | | | | DRAWN | J.L.H. | 8-16-78 |
| | | | | | CHECKED | | |
| | | | | | CHECKED | | |
| | | | | | PROJ. APP. | | i |
| PRT. | SEP. | DATE | то | w.o. | DESIGN | | |
| PRINT RECORD | | | w.o. | | ···· | | |

El Paso Natural Gas Company

TYPICAL LOCATION PLAT FOR MESAVERDE OR DAKOTA DRILL SITE

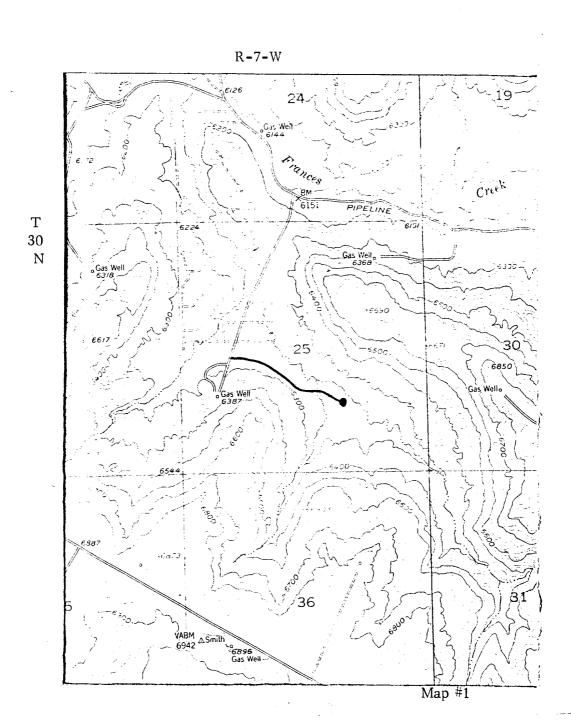
| SCALE: 1" = 50" | 1" - 50' | | DWG. |
|-----------------|----------|---|------|
| SCALE. | 1 - 50 | į | NO |

REV.



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 30-6 #78 A SE 25-30-7



LEGEND OF RIGHT-OF-WAYS EXISTING ROADS EXISTING PIPELINES

EXISTING PIPELINES

EXISTING ROAD & PIPELINE

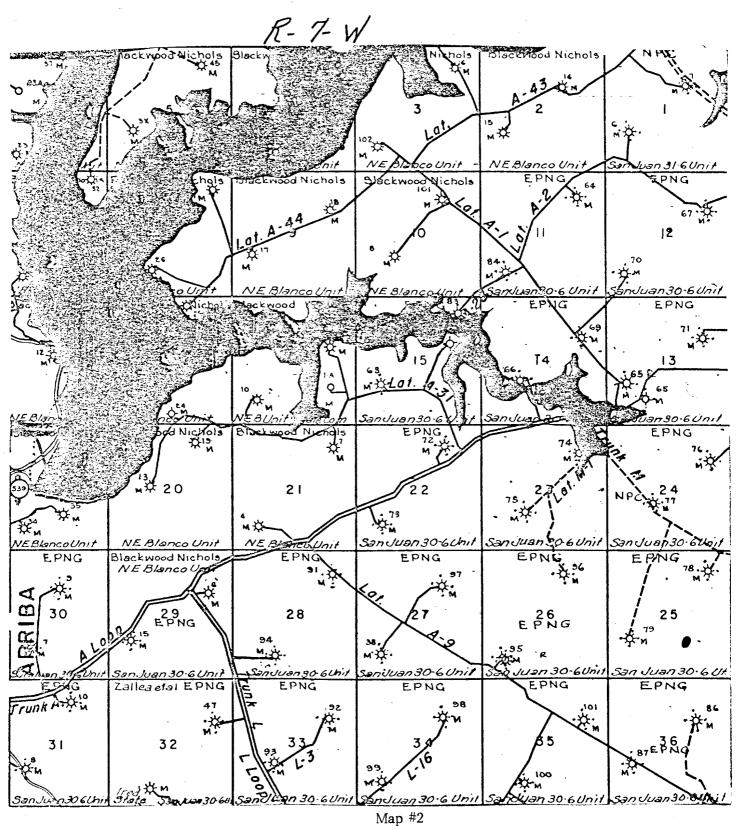
PROPOSED ROADS

PROPOSED PIPELINES

+ + +

PROPOSED ROAD & PIPELINE

EL PASO NATURAL GAS COMPANY San Juan 30-6 #78 A SE 25-30-7



Proposed Location