## SUBMIT IN TRIPLICATE\*

(Other instructions on reverse side)

Form approved. Budget Bureau No. 42-R1425.

-045 0375s

# UNITED STATES DEPARTMENT OF THE INTERIOR

|  |   |  |   |  |  |                               |  | 5. LEASE DESIGNATION  | M AND BELIAL NO.                                   |
|--|---|--|---|--|--|-------------------------------|--|---|--|
| GEOLOGICAL SURVEY  |   |  |   |  | SF 077092-B  |                               |  |   |  |
| APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK  |   |  |   |  | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME   |                               |  |   |  |
| a. TYPE OF WORK  |   |  |   |  |  |                               |  | 7 8 9 9   |  |
| DRI<br>b. type of well   | ILL 🗵   |  | DEEPEN  |  | PL   | UG BA                         | CK 📙   | 7. UNIT AGREEMENT   | NAME   |
| OIL C  | VELL X  |  |   |  | NGLE   | MULTI                         | LE   | 8. FARM OR LEASE N  | A De m   |
| NAME OF OPERATOR   | VELL X  | OTHER  |   | Z(   | SINGLE MULTIPLE ZONE ZONE  |                               | <del>X</del>                                 | -   |  |
| El Paso Nat  | tural Ga  | as Com   | nany  |  |  |                               |  | Lackey C  |  |
| ADDRESS OF OPERATOR  | <u> </u>  | <u> </u>   | puny  |  |  |                               |  | 1R  | <u>:</u>   |
| PO Box 289   | , Farmin  | ngton,   | NM 874  | 01   |  |                               |  | 10. FIELD AND POOL,<br>Aztec Pic  | OR WILDCAT   |
| LOCATION OF WELL (R  | teport location o   | clearly and  | in accordance wi  | th any S   | tate requireme   | nts.*)                        |  | Blanco Me   | esa Verde  |
|  | 1840'   | 'N, 18   | 40 <b>'</b> E   |  |  |                               |  | 11. SEC., T., R., M., OI<br>AND SURVEY OR   | BLK.   |
| At proposed prod. zon  | ae  |  |   |  |  |                               |  |   | -29-N,R-10   |
| . DISTANCE IN MILES  | same  |  |   |  |  |                               |  | NMPM  |  |
|  |   |  |   | T OFFIC  | ••   | •                             |  | 12. COUNTY OR PARIS   | H 13. STATE  |
| 2 miles non  |   | OI BI  | anco, NM  | 16 NO  | . OF ACRES IN  | TWACE                         | 1 17 22 3                                    | San Juan  | NM   |
| LOCATION TO NEAREST<br>PROPERTY OR LEASE L   | LINE PT   |  | 1840'   | 10   |  |                               | TO TH  | F ACRES ASSIGNED  | Maria  |
| (Also to nearest drig  |   |  | 1040  | 10 pp  | 316.   | 5<br>——                       | 20 200                                       | 157.68  | & 316.8  |
| TO NEAREST WELL, DO<br>OR APPLIED FOR, ON THE  | RILLING, COMPL  | ETED,  | 800'  | 15. 15   | 5055   | ,                             | Rotar  | ARY OR CABLE TOOLS  |  |
| . ELEVATIONS (Show whe   |   | GR, etc.)  |   | 1  | 1000   Rocal   |                               | Motar  | 22. APPROX. DATE WORK WILL START*   |  |
| 5821 <b>'</b> GL   |   |  |   |  |  |                               |  | ,   | WILD START   |
|  |   | Pi   | ROPOSED CASI  | NG ANI   | CEMENTING  | PROGRA                        | . м  |   |  |
| SIZE OF HOLE   | SIZE OF CA  |  | WEIGHT PER F  |  |  |                               |  |   |  |
| DIED OF HOLE   | SIZE OF CA  | ASING  | WEIGHT FER F  | 001  | SETTING I  | EPTH                          |  | QUANTITY OF CEMENT  |  |
| 12 2/44  | 0 5 /0  |  | 26 01   |  | 000  | •                             |  | <b>.</b>  |  |
| 13 3/4"  | 9 5/8   | 3"   | 36.0#   |  | 200  |                               |  | u.ft. to ci   |  |
| 13 3/4"<br>8 3/4"<br>6 1/4"  | 7"  |  | 36.0#<br>20.0#<br>r 10.5#   |  | 200<br>2707<br>2557 <b>-</b> 50!   | 1                             | 338 c  | u.ft. to ci   | zer Ojo Al   |
| 8 3/4" 6 1/4"  Selectively Cliffs form A 3000 psi  | 7" 4 1/2 y performation. WP and   | e"line   | 20.0# r 10.5# nd sandwa   | ter<br>doul  | 2707<br>2557-509<br>fractur  | 55'<br>ce the                 | 338 c<br>436 c<br>Mesa                       | u.ft.to covu.ft.to cir Verde & Pi   | ver Ojo Al<br>cc.liner<br>cctured                  |
| 8 3/4" 6 1/4"  Selectively Cliffs form   | 7" 4 1/2 y performation. WP and   | e"line   | 20.0# r 10.5# nd sandwa   | ter<br>doul  | 2707<br>2557-509<br>fractur  | 55'<br>ce the                 | 338 c<br>436 c<br>Mesa                       | u.ft.to covu.ft.to cir Verde & Pi   | ver Ojo Al<br>cc.liner<br>cctured                  |
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| 8 3/4" 6 1/4"  Selectively Cliffs form A 3000 psi blind and p  | 7" 4 1/2 y performation. WP and pipe ram  | e"line   | 20.0# r 10.5# nd sandwa   | ter<br>doul  | 2707<br>2557-509<br>fractur  | 55'<br>ce the                 | 338 c<br>436 c<br>Mesa                       | u.ft.to covu.ft.to cir Verde & Pi   | ver Ojo Al<br>cc.liner<br>ctured                   |
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| 8 3/4" 6 1/4"  Selectively Cliffs form A 3000 psi blind and p  | 7" 4 1/2 y performation. WP and pipe ram  | eate and 6000 pas will   | 20.0# r 10.5# nd sandwa psi test l be used                                | ter<br>douk  | 2707<br>2557-509<br>fractur<br>ple gate<br>blow o  | se the                        | 338 c<br>436 c<br>Mesa<br>Venter<br>revent   | u.ft.to covu.ft.to cir Verde & Pi   | ver Ojo Al<br>cc.liner<br>cctured                  |
| 8 3/4" 6 1/4"  Selectively Cliffs form A 3000 psi blind and p . This gas is  | y performation.  WP and pipe ram s dedica   | e"line: 6000 pas wil:  | 20.0# r 10.5# nd sandwa psi test l be used                                | dould for  | 2707<br>2557-509<br>fracturates ole gates blow of  | ce the prevout provided well. | 338 c<br>436 c<br>Mesa<br>Venter<br>revent   | u.ft.to con<br>u.ft.to cir<br>Verde & Pi<br>equipped w<br>ion on this                                       | ver Ojo Al<br>cc.liner<br>cctured<br>vith<br>well. |
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| 8 3/4" 6 1/4" Selectively Cliffs form A 3000 psi blind and p This gas is The N/2 of ABOVE SPACE DESCRIBE THE IF PROPOSAL IS to convenient program if any   | y performation.  WP and pipe ram s dedica  Section FROPOSED PROGrammed of the property of the | erate and 6000 pas will is ted.                                    | 20.0# r 10.5# and sandwar psi test l be used                              | douk<br>douk<br>for  | 2707<br>2557-509<br>fractur<br>ole gate<br>blow o  | ce the prevout provided well. | 338 c<br>436 c                               | u.ft.to con<br>u.ft.to cir<br>Verde & Pi<br>equipped w<br>ion on this                                       | ctured with well.                                  |
| 8 3/4" 6 1/4" Selectively Cliffs form A 3000 psi blind and p This gas is The N/2 of ABOVE SPACE DESCRIBE 16. If proposal is to deventer program, if any  | y performation.  WP and pipe ram s dedica  Section PROPOSED PROG drill or deepen  | erate and 6000 pas will.   | 20.0# r 10.5# and sandwar psi test l be used s dedicat roposal is to deep | double for production of the data of the d | 2707<br>2557-509<br>fracturate of gates blow of blow of this subsurface loss as the subsurface of the subsur | well.                         | 338 c<br>436 c<br>e Mesa<br>venter<br>cevent | u.ft.to covu.ft.to ciru.ft.to ciru.ft.to ciru.ft.to ciru.ft.to ciru.ft.ft.ft.ft.ft.ft.ft.ft.ft.ft.ft.ft.ft. | cc.liner  ctured  the well.                        |
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| 8 3/4" 6 1/4"  Selectively Cliffs form A 3000 psi blind and p  This gas is  The N/2 of  ABOVE SPACE DESCRIBE  The If proposal is to deventer program, if any  SIGNED LAGA  (This space for Feder | y performation.  WP and pipe ram  S dedica  Section PROPOSED PROG drill or deepen y.  | e"line: 6000 pas wil: ted.  11 is GRAM: If particular directionals | 20.0# r 10.5# and sandwar psi test l be used s dedicat roposal is to deep | douk<br>douk<br>douk<br>len or p<br>data o   | 2707 2557-509 fractur ole gate blow of to this lug back, give a subsurface lo  | well.                         | 338 c<br>436 c<br>e Mesa<br>venter<br>cevent | u.ft.to covu.ft.to ciru.ft.to ciru.ft.to ciru.ft.to ciru.ft.to ciru.ft.ft.ft.ft.ft.ft.ft.ft.ft.ft.ft.ft.ft. | cc.liner cc.liner ctured with well.                |

\*See Instructions On Reverse Side

#### OIL CONSERVATION DIVISION

#### STATE OF NEW MEXICO ENERGY AND MENERALS DEPARTMENT

# P. O. BOX 2088 SANTA FE, NEW MEXICO 87501 All distances must be from the outer boundaries of the Section

Form C-102 Revised 10-1-78

|  | ·_ ·_ · · · · · · · · · · · · · · · · ·                                       | All distances must be pro-  |   | 1114 34 4 1611.  |  |  |  |  |
|--|---|---|---|--|--|--|--|--|
| Operator  ET DACO MAI                  | TITOAT CAC COM  | D4 377F   | Lease   | (SF-077092-B)  | Well No.   |  |  |  |
| Unit Letter                            | TURAL GAS COM   | Township  | I.ACKEY "C"   | (SF = 0 / / 092 = B)   | 1R -   |  |  |  |
| G                                      | 11  | 29N   | 10W   | San Juan   |  |  |  |  |
| Actual Footage Loc                     | L   | 2/11  |   | Dail ouall   |  |  |  |  |
| 1840                                   |   |   |   |  |  |  |  |  |
| Ground Level Elev.                     |   |   | Pool Aztec Pictur   |  | Dedicated Acreage:   |  |  |  |
| 5821                                   | Mesa Ver  |   |   | esa Verde  | 316.80 & 157.68 <sub>es</sub>  |  |  |  |
| •                                      | an one lease is   | •   | •   | or hachure marks on the  | e plat below.  |  |  |  |
|  | ommunitization, u   | ifferent ownership is d<br>nitization, force-poolin<br>swer is "yes," type of | g. etc?   | , have the interests of  | all owners been consoli-   |  |  |  |
| this form it<br>No allowat             | f necessary.)<br>ble will be assigne<br>ling, or otherwise)<br>DIE: THIS PLAT | ed to the well until all<br>or until a non-standard<br>IS REISSUED TO I       | interests have been<br>unit eliminatirzsu<br>REFLECT DUAL COM | consolidated (by comm<br>ich interests, has been a<br>APLETION. 8-7-79         | nunitization, unitization, approved by the Commis-   |  |  |  |
| XXXXXXXX                               | ××××××××  |   |   |  | CERTIFICATION  |  |  |  |
| ×××××××××××××××××××××××××××××××××××××× | <br> <br> <br> <br> <br> <br> <br>  | 1840  | 1840  | name best of my  | ertify that the information con- ein is true and complete to the knowledge and belief.  MANGUED  ng Clerk  O Natural Gas Co.   |  |  |  |
| X<br>X                                 | i<br>i<br>i<br>s  | SF-077092-B<br>ec.  | <br>  | August<br>Date   | 13, 1979   |  |  |  |
| $\langle \hspace{-0.07cm} \rangle$     |   |   |   |  |  |  |  |  |
|  |   | . 11  |   | shown on to<br>notes of a<br>under my s<br>is true an                          | certify that the well location his plat was plotted from field actual surveys made by me or supervision, and that the same and correct to the best of my and belief. |  |  |  |
|  |   |   |   | Date Surveye  July  Registere R  and/or / Surveye  Fired (Certification No. 1) | turessimal Engineer  |  |  |  |
| 0 330 660                              | 90 1320 1650 198  | 0 2310 2640 2000  | 1500 1000   | 3950   | SED TO SEL   |  |  |  |



P. O. BOX 990 FARMINGTON, NEW MEXICO 87401

PHONE: 505-325-2841

#### Multi-Point Surface Use Plan

#### Lackey C #1R

- 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 Bloomfield Ditch.
- 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 and rabbitbrush growing. Cattle 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.

L. A. Aimes

Project Drilling Engineer

#### Operations Plan Lackey C #1R

I. Location: 1840'N, 1840'E, Section 11, T-29-N, R-10-W, San Juan County, NM
Field: Aztec PC & Blanco MV Elevation: 5821'GR

## II. Geology:

| A. Formation Tops: Surface Ojo Al Kirtla Fruitl Pic.Cl | Lamo 1229'<br>and 1286'<br>Land 1967' | Lewis<br>Mesa Verde<br>Menefee<br>Point Lookout<br>Total Depth | 2507'<br>3912'<br>4135'<br>4601'<br>5055' |
|--|---------------------------------------|--|---|
|--|---------------------------------------|--|---|

B. Logging Program: I-ES and GR-Density at 2707' GR-Ind. and GR-Density at Total Depth.

C. Coring Program: none

D. Natural Gauges: 3900', 4125', 4590' 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 2707'. Gas from intermediate casing to Total Depth.

# IV. Materials:

| Α. | Casing Program: | Hole Size | Depth         | Casing Size | Wt.&Grade  |
|----|-----------------|-----------|---------------|-------------|------------|
|    |                 | 13 3/4"   | Depth<br>200' | 9 5/8"      | 36.0# K-55 |
|    |                 | 8 3/4"    | 2707'         | 7"          | 20.0# K-55 |
|    |                 | 6 1/4"    | 2557-5055'    | 4 1/2"      | 10.5# K-55 |

B. Float Equipment: 9 5/8" surface casing - B & W guide shoe (Prod. No. FC 06-09611-0200)

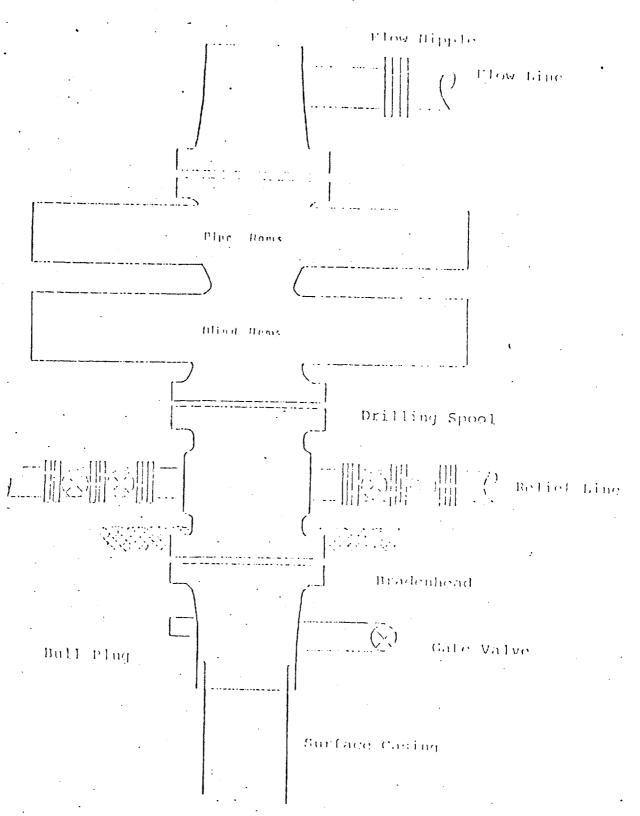
7" intermediate casing - Pathfinder guide shoe (Part #1003-1-007) and Howco self-fill insert float valve (Price Ref. 36A&37), 5 Pathfinder stabilizers (Part #107-10) every other joint above shoe. Run float two joints above shoe.

- 4 1/2" liner 4 1/2" liner hanger with neoprene packoff. Larkin geyser shoe (Fig.222) and Larkin flapper type float collar(fig.404 M&F).
- C. Tubing: 5055' 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.

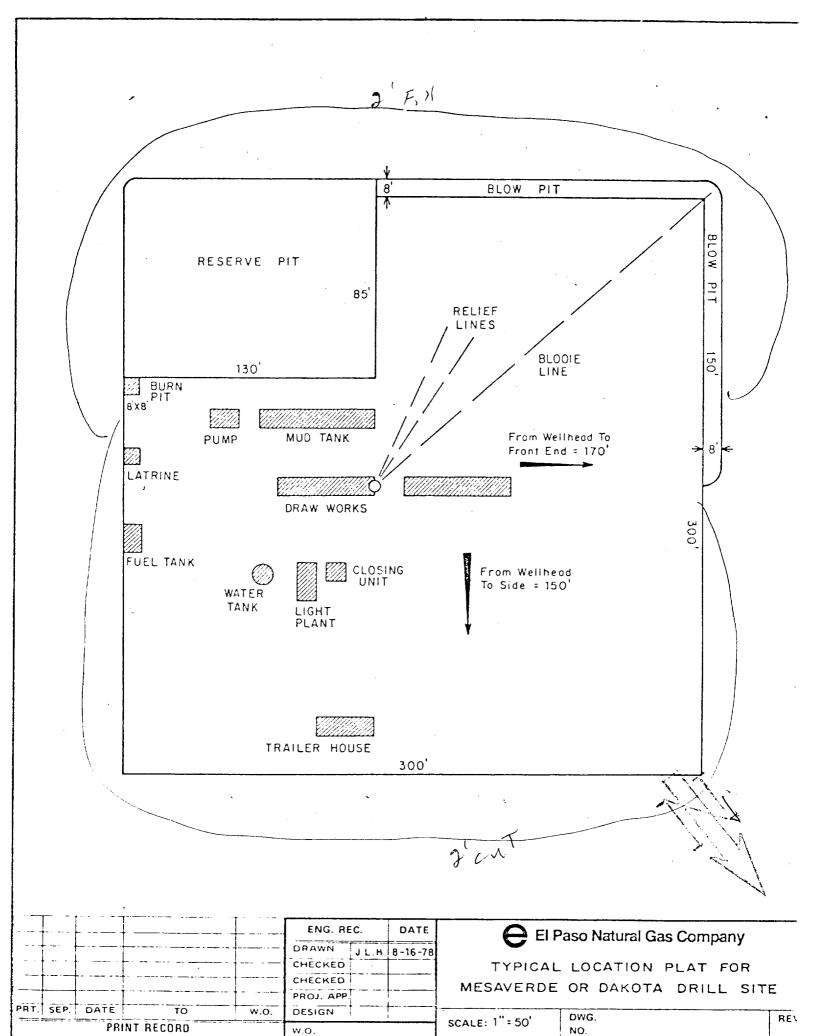
  2707' of 1 1/4", 2.33#, J-55 IJ tubing with a common pump seating nipple above a perforated joint plugged on bottom. Isolate producing formations with a packer.
- D. Wellhead Equipment: 10" 900 x 9 5/8" casing head. 10" x 7 1/2" casing hanger, 10" 2000 x 6" 2000 dual tubing head.

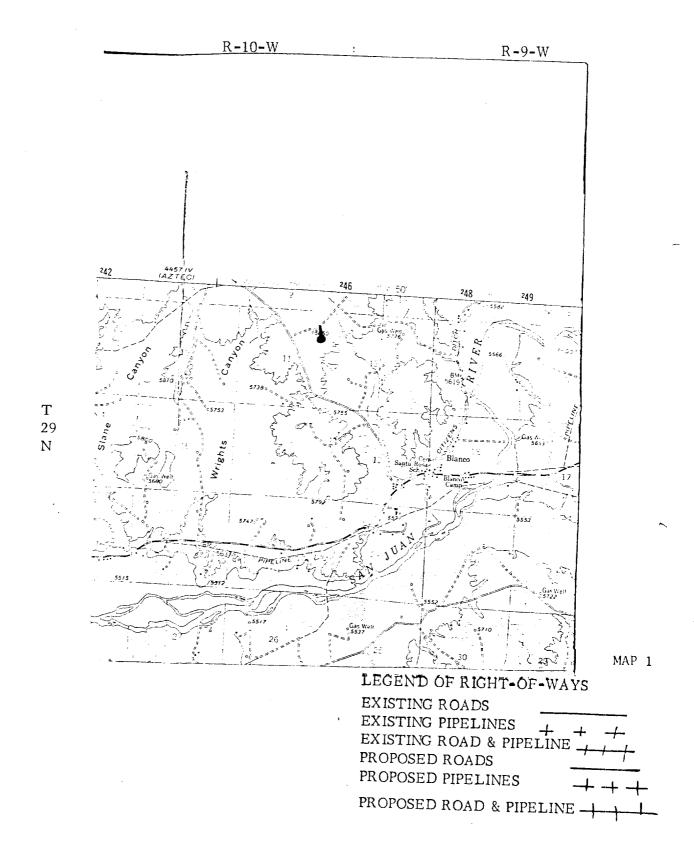
# V. Cementing:

- 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 133 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 (333 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 314 sks. of 50/50 Class "B" Poz with 2% gel, 0.6% Halad-9, 6.25# gilsonite plus 1/4# Flocele per sack (436 cu.ft. of slurry, 70% excess to circulate liner). WOC 18 hours.

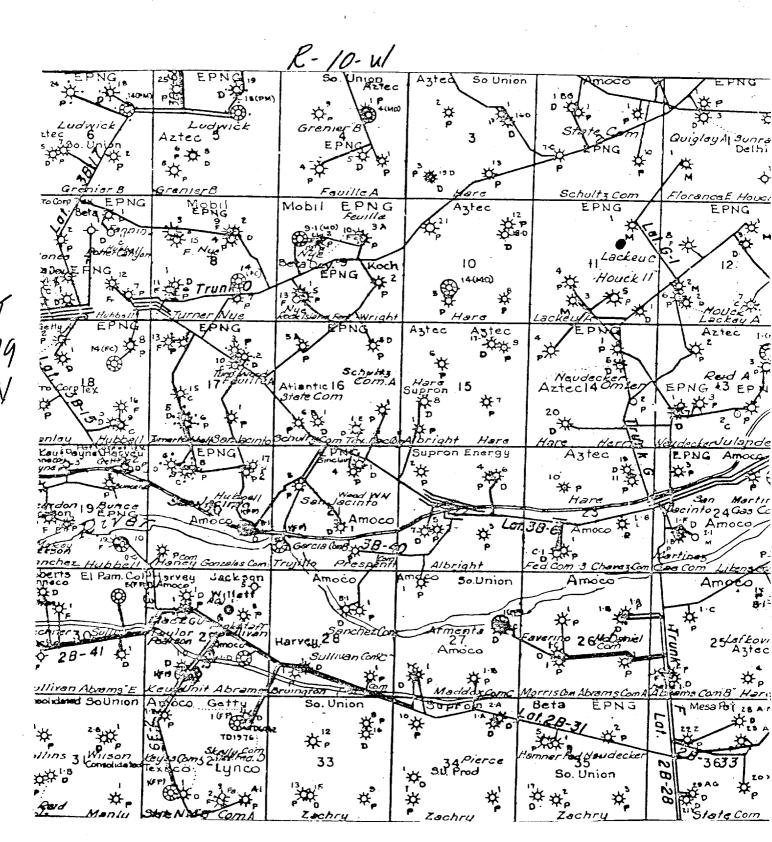


Series 900 Double Gate BOF, rated at 3000 psi Working Pressure
When gas drilling operations begin a Shaffer type 50 or equivalent rotating head is installed on top of the flow nipple and the flow line is converted into a blowie line





El Paso Natural Gas Company Lackey C #1 R NE 11-29-10



MAP 2