Form 3160-3. (August 1999)

## UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED OMB NO. 1004-0136

| f BUREAU OF LAND MANAGE  | EMENT ABU   | Exp                          | ires: November 30, 2000                        |  |
|--|---|------------------------------|--|--|
| APPLICATION FOR PERMIT TO DRIL   | LORREGUER JAN 2001  | 5. Lease Seria<br>SF - 0790  |  |  |
| la. Type of Work X DRILL - REEN  | JES CON DIA   | 6. If Indian, A              | Illotee or Tribe Name                          |  |
| ib. Type of Well Oil Well X Gas Well Other   | Single Zone Suntingle Zone  | 7. Unit or CA<br>San Jua     | Agreement Name and No.<br>n 32-8 Unit          |  |
| Name of Operator     Phillips Petroleum Company     Address  | 3b. Phone No. (protuite area co   | SJ 32-8                      | e and Well No.<br>Unit #16A                    |  |
| 5525 Highway 64, NBU 3004, Farmington, NM 8740   | 505-599-3454  | ' E U A PI Wall N            | -045-30412                                     |  |
| 4 Location of Well (Report location clearly and in accordance with any At surface Unit C, 155' FNL & 2460' FWL   | State equirements)*   |                              | Pool, or Exploratory<br>Mesaverde              |  |
| At proposed prod. zone Same as abov  | re  |                              | R., M., or Blk. and Survey or A  15. T31N, R8W |  |
| 4. Distance in miles and direction from nearest town or post office*  7 miles north of Nav   | vaio Dam. NM  | 12. County or<br>San Juan    | Parish 13. State                               |  |
| 15. Distance from proposed*  | 16. No. of Acres in lease   | 17. Spacing Unit dec         |  |  |
| property or lease line, ft. (Also to nearest drg. unit line, if any)   | 2560 acres  | 320 W/2                      |  |  |
| 18. Distance from proposed location* to nearest well, drilling, completed,   | 19. Proposed Depth  | 20. BLM/BIA Bond             | LM/BIA Bond No. on file                        |  |
| applied for, on this lease, ft.  | 6236~   |                              | ES0048   |  |
| 21. Elevations (Show whether DF, KDB, RT, GL. etc. 6599 'GL  | 22. Approximate date work will st<br>4th Qtr 2000                                       | art* 23. Estin               | nated duration 20 days                         |  |
|  | 24. Attachments   |                              |  |  |
| The following, completed in accordance with the requirements of Onshore  | e Oil and Gas Order No. 1, shall be attac   | hed to this form:            |  |  |
| <ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan</li> <li>A Surface Use Plan (if the location is on National Forest System Land SUPO shall be filed with the appropriate Forest Service Office).</li> </ol> | Item 20 above).   |                              | y an existing bond on file (see                |  |
| 25. Signuature   | Name (Printed/Typed)  |                              | Date   |  |
| Title Satsuy Cluston   | Patsy Clugston  |                              | 10/27/00                                       |  |
| Sr. Regulatory/Proration Clerk   | N (D.i 1/T N  |                              | . Dete   |  |
| Approved by (Signautre)  | Name (Printed/Typed)  |                              | DEC 2 0 2000                                   |  |
| Title Trans Land, Potroloum Management   | Office  |                              |  |  |
| Application approval does not warrant or certify that the applicant holds conduct operations thereon.  Conditions of approval, if any, are attached.   | legal or equitable title to those rights in   | the subject lease whic       | h would entitle the applicant to               |  |
| Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it United States any false, fictitious or fraudulent statements or representation  | t a crime for any person knowlingly and<br>ons as to any matter within its jurisdiction | willfully to make to a<br>1. | any department or agency of the                |  |
| *(Instructions on Reverse)   |   |                              |  |  |

This action is eabject to technical and procedural review pursuant to 43 OFR \$165.3 and appeal pursuant to 43 CFR \$165.4.

DOMESTIC COVERENCES AUTHORIZED ARE WELLELD TO SUPERING WITH ATTACHED "MENERAL REGULAREMENTS"

District I

PO Box 1980, Hobbs, NAI 88241-1980

District II

#11 South First, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Adec, NM 87410

District IV

2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised October 18, 1994

Instructions on back Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

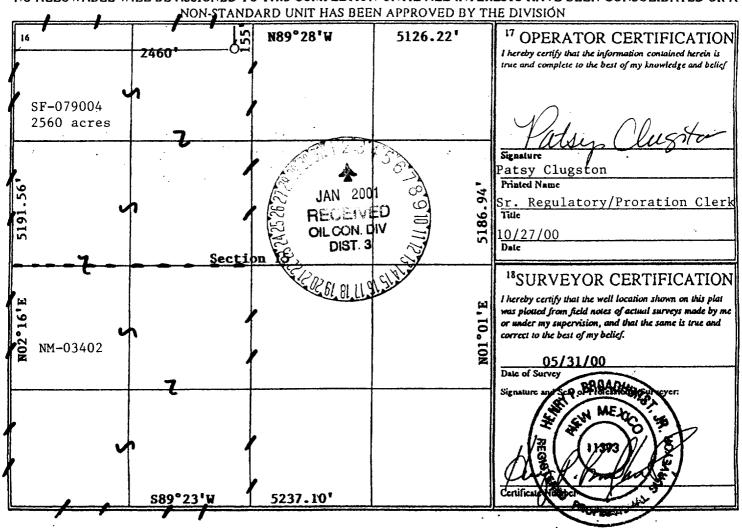
| 30-04'S-30                       | ber<br>0412 | <sup>1</sup> Pool Code<br>72319 | Blanco Mesaverde            |                       |
|----------------------------------|-------------|---------------------------------|-----------------------------|-----------------------|
| 1 Property Code 009261           |             |                                 | roperty Name<br>N 32–8 UNIT | * Well Number<br>16A  |
| <sup>7</sup> оскію м».<br>017654 |             | •                               | peratur Name ROLEUM COMPANY | 'Elevation<br>6599' — |

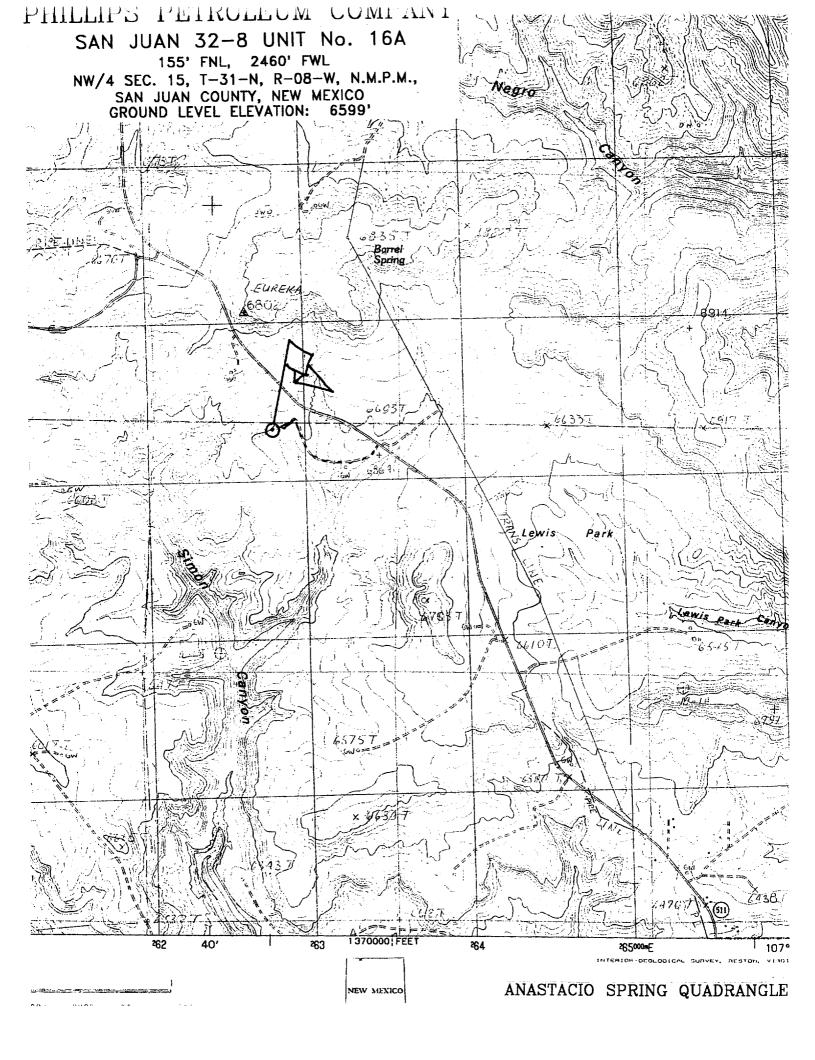
10 Surface Location

| UI, or lut no.                                      | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| С   | 15      | 31N      | 8W    |         | 155*          | NORTH            | 24601         | WEST           | SAN JUAN |
| 11 Bottom Hole Location If Different From Surface ' |         |          |       |         |               |                  |               |                |          |

| UL, or lot no.<br>C | Section               | Tuwnshi   | p Range        | Lot 1d  | 1    | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------------|-----------------------|-----------|----------------|---------|------|---------------|------------------|---------------|----------------|--------|
| 11 Dedicated Acre   | s <sup>13</sup> Joint | or Infill | 14 Consolidati | on Code | n Ou | det No.       |                  |               |                |        |
| 320 W/2             |                       | Y         | U              |         |      |               |                  |               |                |        |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A





## PHILLIPS PETROLEUM COMPANY

| WELI | L NAME: San Juan 32-8 #16A MV   |
|------|---|
| DRIL | LING PROGNOSIS  Location of Proposed Well: Unit C, 155' FNL & 2460' FWL  Section 15, T31N, R8W  |
| 2.   | Unprepared Ground Elevation: <u>@ 6599' (unprepared)</u> .  |
| 3.   | The geological name of the surface formation is <u>San Jose</u> .   |
| 4.   | Type of drilling tools will be <u>rotary</u> .  |
| 5.   | Proposed drilling depth is 6236.  |
| 6.   | The estimated tops of important geologic markers are as follows:  |
|      | Naciamento -       886'       Lewis Shale -       3686'         Ojo Alamo -       2271'       Cliff House Ss -       5416'         Kirtland Sh -       2376'       Menefee Fm       5466'         Fruitland Fm3101'       Pt. Lookout -       5786'         Pictured Cliffs -       3466'       Mancos Sh -       6061' |
| 7.   | The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:  |
| •    | Water: Ojo Alamo - 2271' - 2376' Gas & Water: Fruitland - 3101' - 3466' Gas: Mesaverde - 5416' - 6061'  |
| 8.   | The proposed casing program is as follows:  |
|      | Surface String: 9-5/8", 32.3#, H-40 @ 320' Intermediate String: 7", 20#, J/K-55 @ 3861' Production String: 4-1/2", 11.6#, I-80 @ 6236* (TD)   |
| 9.   | Cement Program: <u>Surface String</u> :  158.5 sx Type III cement with 2% bwoc CaCl2 + ½#/sx Cello- flake mixed at 14.5 ppg with a 1.41 ft3/sx yield w/46.5% H2O or sufficient to circulate to surface – 223 cf.  |

Note: Cement slurry calculations based on cement to surface with 140% excess hole volume.

Intermediate String: Lead Cement: 465.5 sx Type III cement (35:65) POZ with 5#/sx

Gilsonite, ¼#/sx Cello-flake, 6% bwoc gel (bentonite), 10#/sx CSE, 3% bwow KCL, 0.4% bwoc FL-25 mixed and 0.02#/sx Static Free mixed at 12.0 ppg with a yield of 2.37 ft3/sx – 1103 cf.

<u>Tail Cement</u>: 50 sx — Type III cement with ½#/sx Cello-flake and 1% CaCl2 mixed at 14.5 ppg with a 1.40 Ft3/sx yield (70 cf).

In the event we encounter fluid loss during drilling operations, a contingency plan for cementing the intermediate casing may require a stage collar. Phillips cannot predict exact volumes. However the 1<sup>st</sup> stage will be Cl H cement w/5#/sx Gilsonite, 0.25#/sx Cello-flake, 0.3% FL-25 & 2% CaCl2 mixed at 15.2 ppg 1.28 yield. Stage 2 - lead slurry: 65 % Class H & 35% POZ w/6% Bentonite mixed at 12.6 ppg 1.79 cf/sx Tail Slurry - Class H w/2% CaCl2 mixed at 15.6 ppg 1.20 yield. All attempt to be circulated to surface.

## **Production String**

Lead: 166.5 sx Type III (35/65 POZ (Fly Ash) with 6% bwoc Bentonite, 10#/sx CSE, 0.2#/sx Static Free, 1% bwoc FL-52, 0.3% bwoc CD-32, 0.3% bwoc R-3 & 0.25#/sx Cello-Flake mixed at 12.3 ppg w/yield of 2.13 ft3/sx – 355 cf.

Note: The Production String casing cement is designed to cover openhole section (with 40% excess) and 100' inside the 7" shoe.

Note: Phillips Petroleum continually works to improve the cement slurries on our wells. BJ Services is currently trying to improve what we are using now and before we would use a new cement program it would have to have stronger properties than we are currently using.

## Centralizer Program:

Surface: Total four (4) 1 @ 10' above shoe & top of 2<sup>nd</sup>, 4<sup>th</sup> & 6<sup>th</sup> joint

Intermediate: Total seven (7) – 10' above shoe, top of 1st, 2nd, 4th, 6th, & 8th its &

1 jt. Above surface casing.

Production: None planned.

Turbulators: Total Three (3) – on intermediate casing at 1st jt. Below the Ojo

Alamo and next 2 jts up.

10. The minimum specifications for pressure control equipment which are to be used, a schematic diagram thereof showing sizes, pressure ratings (or) API series and the testing procedure and testing frequency are enclosed within the APD packet.

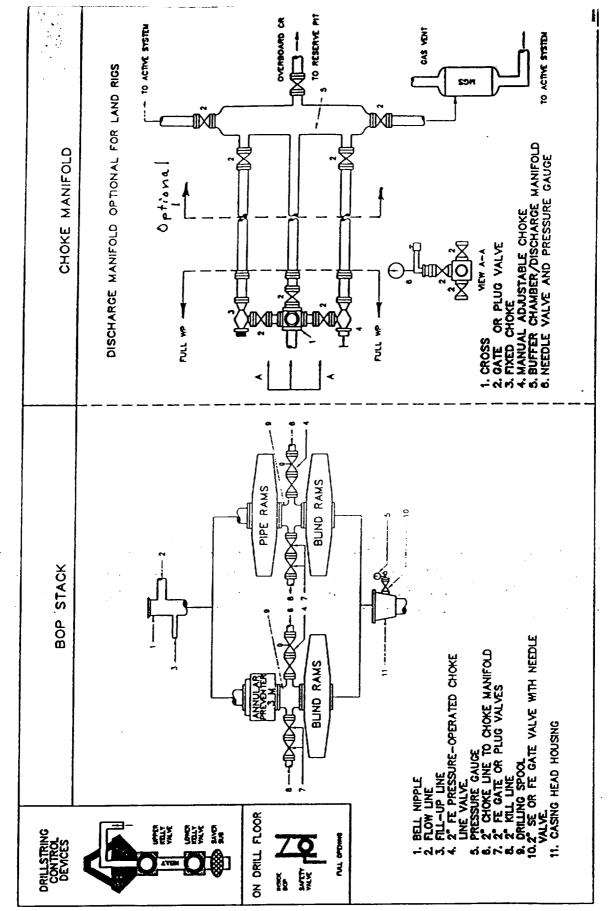


Fig. 2.4, Class 2 BOP and Choke Manifold.