

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMSF079048
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other: CBM <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator PHILLIPS PETROLEUM COMPANY		7. If Unit or CA Agreement, Name and No. 31345
3a. Address 5525 HWY. 64 FARMINGTON, NM 87401		8. Lease Name and Well No. SAN JUAN 32 FED 28 1A
3b. Phone No. (include area code) Ph: 505.599.3454 Fx: 505-599-3442		9. API Well No. 30 045 31330
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NWNW 1000FNL 1170FWL 36.96028 N Lat, 107.78920 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
14. Distance in miles and direction from nearest town or post office* 17.8 MILES NNE OF AZTEC, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 28 T32N R9W Mer NMP D
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1000		12. County or Parish SAN JUAN
16. No. of Acres in Lease 2080.00		13. State NM
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.		17. Spacing Unit dedicated to this well 317.78 w/2
19. Proposed Depth 3575 MD 3575 TVD		20. BLM/BIA Bond No. on file ES0048
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6765 GL		23. Estimated duration 30 DAYS
22. Approximate date work will start 03/01/2003		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature (Electronic Submission)	Name (Printed/Typed) PATSY CLUGSTON	Date 01/03/2003
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) /s/ David J. Mankiewicz	Name (Printed/Typed)	Date FEB 13 2003
Title Office		

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #17270 verified by the BLM Well Information System  
For PHILLIPS PETROLEUM COMPANY, sent to the Farmington

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

\*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* NMOC

DISTRICT I  
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II  
811 South First, Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Artesia, N.M. 87410

DISTRICT IV  
8040 South Pacheco, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 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

<sup>1</sup> API Number 30-045-31330	<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name Basin Fruitland Coal
<sup>4</sup> Property Code 23394	<sup>5</sup> Property Name SAN JUAN 32 FED 28	<sup>6</sup> Well Number 1A
<sup>7</sup> OGED No. 017654	<sup>8</sup> Operator Name PHILLIPS PETROLEUM COMPANY	<sup>9</sup> Elevation 6765

<sup>10</sup>Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	28	32N	9W		1000	NORTH	1170	WEST	SAN JUAN

<sup>11</sup>Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D									

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
317.78 W/2	Y	U	

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div>16 2627.46' 1170' 1000' N89°47'W 5244.36' 3 2 1</div>	<div>17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Patsy Clugston Printed Name Patsy Clugston Title SHEAR Administrative Assistant Date 11-26-02</div>
<div>5 SF-079048 2080.0 Acres N0°40'E 2 Section 28 7 8</div>	<div>18 SURVEYOR CERTIFICATION 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 is true and correct to the best of my belief.  Date of Survey 11/06/02 Signature and Seal of Professional Surveyor:  HENRY P. BROADHURST REGISTERED PROFESSIONAL SURVEYOR 1393</div>
<div>12 2640.66' N0°10'E 13 14 15 16 N89°47'W 5243.04'</div>	

PHILLIPS PETROLEUM COMPANY

WELL NAME: San Juan 32 Fed 28 #1A

DRILLING PROGNOSIS

1. Location of Proposed Well: Unit D, 1000' FNL & 1170' FWL  
Section 28, T32N, R9W
2. Unprepared Ground Elevation: @ 6765'
3. The geological name of the surface formation is San Jose.
4. Type of drilling tools will be rotary.
5. Proposed drilling depth is 3575'.
6. The estimated tops of important geologic markers are as follows:

<u>Nacimiento - 740'</u>	
<u>Ojo Alamo - 1995'</u>	<u>Base of Coal - 3575'</u>
<u>Kirtland - 2025'</u>	<u>Picture Cliffs - 3575'</u>
<u>Fruitland - 3160'</u>	<u>Interm. Casing - 3325'</u>
<u>Top of Coal - 3165'</u>	<u>T. D. - 3575'</u>
7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

Water:	<u>Ojo Alamo - 1995' - 2025'</u>
Oil:	<u>none</u>
Gas:	<u>Fruitland Coal - 3165' - 3575'</u>
Gas & Water:	<u>Fruitland Coal - 3165' - 3575'</u>
8. The proposed casing program is as follows:

Surface String: 9-5/8", 32.3#, H-40 @ 200' \*  
Intermediate String: 7", 20#, J/K-55 @ 3325'  
Production Liner: 5-1/2", 15.5# J/K-55 @ 3305' - 3575' (see details below)

\* The surface casing will be set at a minimum of 200', but could be set deeper if required to maintain hole stability.
9. Cement Program:

Surface String: 102.7 sx Type III cement. Cement to surface w/110% excess of casing/hole annulus volume w/Type III cement + 2% bwoc Calcium Chloride + 0.25#/sx Cello-flake + 60.6% Fresh water (14.5 ppg). (1.41 cf/sx yield = 145 cf)

## 9. Cement program: (continued from Page 1)

Intermediate String: Lead Cement: 380.2 sx Type III cement. Cement to surface - 110% excess casing/hole annular volume w/ Type III cement + 0.25#/sx Cello-flake + 5#/sx Gilsonite + 6% bwoc Bentonite + 10#/sx CSE + 3% bwow KCL + 0.4% bwoc FL-25 mixed + 0.02#/sx static free mixed at 12.0 ppg. (2.52 cf/sx yield = 958cf)

Tail: 50 sx Type III cement + 0.25#/sx Cello-flake + 1% Calcium Chloride mixed at 14.5 ppg. (1.40 cf/sx yield = 70 cf)

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) - 10' above shoe and top of 2<sup>nd</sup>, 3<sup>rd</sup>, & 4<sup>th</sup> jts.

Intermediate: Total seven (7) - 10' above shoe and top of 1<sup>st</sup>, 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup>, & 1<sup>st</sup> jt. into shoe.

Turbulators: Total three (3) - one at 1<sup>st</sup> jt below Ojo Alamo and next 2 jts up.

Liner :

If the coal is cleated a 5 1/2" 15.5# liner will be run in the open hole without being cemented.

- If the coal is NOT cleated, a 4-1/2" 11.6# liner will be run & cemented. The well will then be completed by fracture stimulation. The top of the liner will be set approx. 200' into the 7" casing and be set @ TD and be cement in place as follows:

Lead Cement: Type III cement - 150% excess casing/hole annular volume w/Type III cement + 0.25#/sx Cello-flake + 5#/sx Gilsonite + 6% bwoc Bentonite + 10#/sx CSE + 3% bwow KCL + 0.4% bwoc FL-25 mixed + 0.02#/sx static free mixed at 12.0 ppg. (2.52 cf/sx yield)

Tail: 50 sx Type III cement + 0.25#/sx Cello-flake + 1% Calcium Chloride mixed at 14.5 ppg. (1.40 cf/sx yield = 70 cf)



**San Juan 32 Fed 28 #1A**

**SURFACE CASING :**

Drill Bit Diameter	12.25 "	
Casing Outside Diameter	9.625 "	8.989
Casing Weight	32.3 ppf	
Casing Grade	H-40	
Shoe Depth	200 '	30 '
Cement Yield	1.41 cuft/sk	
Excess Cement	110 %	
Casing Capacity	0.0785 bbl/ft	0.4407 cuft/ft
Hole / Casing Annulus Capacity	0.0558 bbl/ft	0.3132 cuft/ft
Cement Required	102.7 sx	

SHOE 200 ', 9.625 ", 32.3 ppf,

**INTERMEDIATE CASING :**

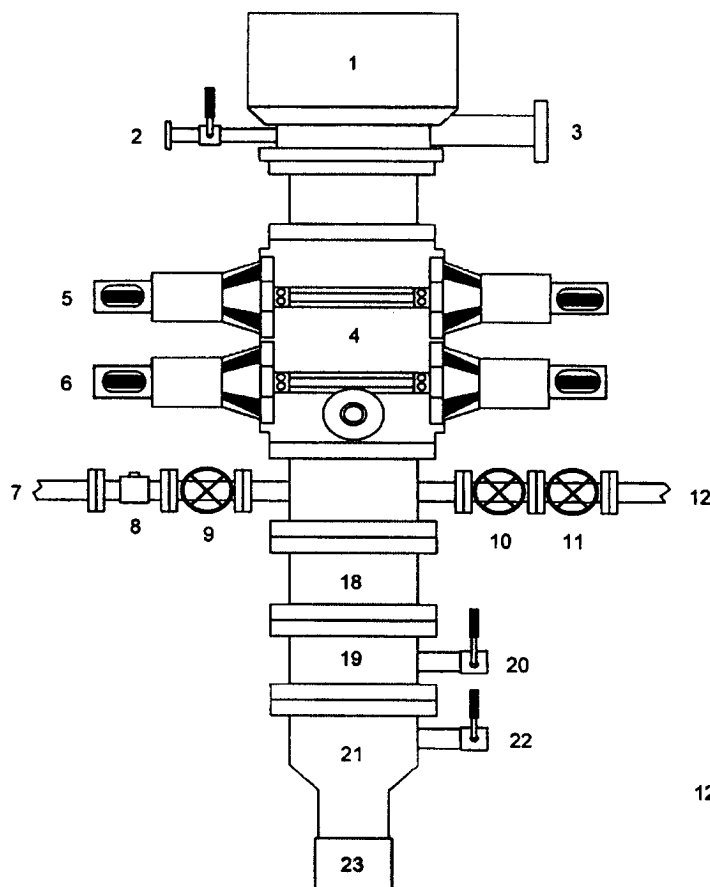
Drill Bit Diameter	8.75 "	
Casing Outside Diameter	7 "	6.455
Casing Weight	20 ppf	
Casing Grade	J-55	
Shoe Depth	3325 '	
Lead Cement Yield	2.52 cuft/sk	
Lead Cement Excess	110 %	
Tail Cement Length	200 '	30 '
Tail Cement Yield	1.4 cuft/sk	
Tail Cement Excess	110 %	
Casing Capacity	0.0405 bbl/ft	0.2272 cuft/ft
Casing / Casing Annulus Capacity	0.0309 bbl/ft	0.1734 cuft/ft
Hole / Casing Annulus Capacity	0.0268 bbl/ft	0.1503 cuft/ft
Lead Cement Required	380.2 sx	
Tail Cement Required	50.0 sx	

LINER TOP 3305 '

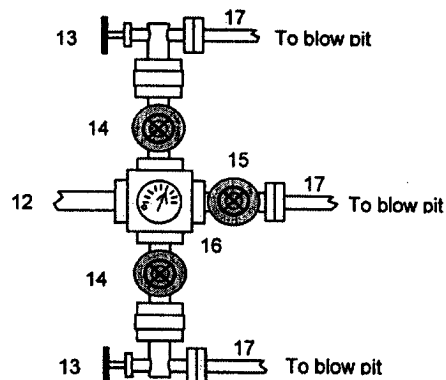
SHOE 3325 ', 7 ", 20 ppf,

LINER BOTTOM 3575'

## BLOWOUT PREVENTER HOOKUP



1. Rotating Head
2. Fill-up Line & valve
3. Flowline
4. Blowout Preventer (3000 psi)
5. Pipe Rams
6. Blind Rams
7. Kill Line
8. Kill Line Check Valve
9. Kill Line Valve
10. Inner Choke Line Valve (3")
11. Outer Choke Line Valve (3")
12. Choke Line (3")
13. Variable Choke
14. Choke Line Valve (2")
15. Panic Line Valve (3")
16. Choke Manifold Pressure Gauge
17. Choke Line (2")
18. Spacer Spool
19. Casing Spool "B" Section
20. Casing Spool "B" Section 2" Valve
21. Casing Head "A" Section
22. Casing Head "A" Section 2" Valve
23. 9 5/8" Casing Collar



Drilling contractors used in the San Juan Basin supply 3000 psi equipment, but cannot provide annular preventors because of sub-structure limitations. Maximum anticipated surface pressures for this well will not exceed the working pressure of the proposed BOP system. The above diagram of the BOP system details 2000 psi equipment according to Onshore Order No. 2 even though the equipment will test to 3000 psi. The 2000 psi system allows deletion of the annular preventor and fulfills your requirements.

In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use