

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

| | | | |
|--|--|--|--|
| 1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5. Lease Serial No. NMSF080377 | |
| 1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone | | 6. If Indian, Allottee or Tribe Name | |
| 2. Name of Operator ConocoPhillips Company | | 7. Unit or CA Agreement Name and No. | |
| 3a. Address 5525 Highway 64, NBU 3004, Farmington, NM 87401 | | 8. Lease Name and Well No. San Juan 29-6 Unit #78M | |
| 3b. Phone No. (include area code) 505-599-3454 | | 9. API Well No. 3003927509 | |
| 4. Location of Well (Report location clearly and in accordance with any State requirements) At surface Unit D (NWNW), 595' FNL & 345' FWL At proposed prod. zone Same as above | | 10. Field and Pool, or Exploratory Basin DK & Blanco MV | |
| 14. Distance in miles and direction from nearest town or post office* 35 miles east of Bloomfield, NM | | 11. Sec., T., R., M., or Blk. and Survey or Area Section 22, T29N, R6W | |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 345' | | 12. County or Parish Rio Arriba, NM | |
| 16. No. of Acres in lease | | 13. State | |
| 17. Spacing Unit dedicated to this well 320.0 W/2 | | 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. | |
| 19. Proposed Depth 7788' | | 20. BLM/BIA Bond No. on file ES0085 | |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6392' GL | | 22. Approximate date work will start* 11/1/03 | |
| | | 23. Estimated duration 30 days | |

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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

| | | |
|---|--|---------------------|
| 25. Signature <i>Patsy Clugston</i> | Name (Printed/Typed) Patsy Clugston | Date 9/22/03 |
| Title SHEAR Administrative Assistant | | |
| Approved by (Signature) <i>David J. Mankiewicz</i> | Name (Printed/Typed) | Date NOV 14 2003 |
| Title Office | | |

Application approval does not warrant or certify that 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.

*(Instructions on Reverse)

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

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

NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO 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

| | | | |
|------------------------------------|--|-----------------------------|---|
| *API Number 30-039-27509 | | *Pool Code 72319 / 71599 | *Pool Name BLANCO MESAVERDE / BASIN DAKOTA |
| *Property Code 31326 | *Property Name SAN JUAN 29-6 UNIT | | *Well Number 78M |
| *OGRID No. 217817 | *Operator Name CONOCOPHILLIPS COMPANY | | *Elevation 6392' |

10 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 | 22 | 29N | 6W | | 595 | NORTH | 345 | WEST | RIO ARriba |

11 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 |
|--|---------|----------|-------|---------|--------------------|------------------|-----------------------|----------------|--------------|
| | | | | | | | | | |
| 12 Dedicated Acres 320.0 Acres - W/2 (MV) 320.0 Acres - W/2 (DK) | | | | | 13 Joint or Infill | | 14 Consolidation Code | | 15 Order No. |

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

| | |
|--|---|
| <p>16 345' 5272.08' 5280.00' 22 5272.08'</p> <p>LEASE SF-080377</p> <p>Homestead Entry #017433</p> <p>NOV 2003</p> | <p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Vicki Westby</i> Signature Vicki R. Westby Printed Name Sr. Analyst Title Date: <u>September 12, 2003</u></p> <p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Survey Date: AUGUST 26, 2003</p> <p>Signature and Seal of Professional Surveyor</p> <p> JASON C. EDWARDS Certificate Number 15269</p> |
|--|---|

10 SEP 24 PM 3:01

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CONOCOPHILLIPS COMPANY

WELL NAME: San Juan 29-6 Unit #78M (MV/DK)

DRILLING PROGNOSIS

1. Location of Proposed Well: Unit D, 595' FNL & 345' FWL,
Section 22, T29N, R6W
2. Unprepared Ground Elevation: @ 6392' (unprepared)
3. The geological name of the surface formation is San Jose.
4. Type of drilling tools will be rotary.
5. Proposed drilling depth is 7788'.
6. The estimated tops of important geologic markers are as follows:

| | |
|--------------------------------|------------------------------------|
| <u>Nacimiento - 1143'</u> | |
| <u>Ojo Alamo - 2443'</u> | <u>Mancos Shale - 5738'</u> |
| <u>Kirtland Sh - 2593'</u> | <u>Gallup - 6743'</u> |
| <u>Fruitland Fm. - 2963'</u> | <u>Greenhorn - 7433'</u> |
| <u>Pictured Cliffs - 3300'</u> | <u>Two Wells - 7553'</u> |
| <u>Cliffhouse - 5060'</u> | <u>Cubero - 7633'</u> |
| <u>Menefee - 5148'</u> | <u>Intermediate Casing - 3600'</u> |
| <u>Pt. Lookout - 5488'</u> | <u>TD - 7788'</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 - 2443' - 2593'</u> |
| Gas & Water: | <u>Fruitland - 2963' - 3300'</u> |
| Gas: | <u>Pictured Cliffs - 3300' - 4273'</u> |
| | <u>Mesaverde - 4273' - 5738'</u> |
| | <u>Dakota - 7553' - 7788'</u> |
8. The proposed casing program is as follows:

Surface String: 9-5/8", 32.3# H-40 @ 220' *

Intermediate String: 7", 20#, J-55 @ 3600' (J-55 will be used, unless the K-55 is the only casing available)

Production String: 4-1/2", 11.6#, I-80 LTC @ 7788' (TD)

* The surface casing will be set at a minimum of 320', but could be set deeper if required to maintain hole stability.

9. Cement Program:

Surface String:

142 sx 50/50 POZ, + 2% Bentonite, 3% CaCl₂, 5#/sx Gilsonite, 0.25#/sx Cellophane flakes, & 0.2% CFR-3 Friction Reducer (1.34 yield = 190 cf); Cement density – 13.5 ppg. Water required 5.39 gal/sx. Compressive Strength – Sample cured at 70 deg F for 8 hours; 3 hrs 05 min. 50 psi; 7 hrs 45 min 500 psi; cement to surface w/150% excess of casing/hole annulus volume.

Intermediate String:

Lead Cement: 361 sx Standard cement + 3% Econolite (extender) + 10#/sx Pheno-seal; (2.88 yield = 1038.5 cf). Cement Density 11.5 ppg; Water required – 16.91 gal/sx. Compressive strength – Sample cured at 130 deg F for 24 hrs – 1 hr 47 min – 50 psi; 12 hrs – 350 psi; 24 hrs – 450 psi; Cement to surface with 150% excess of casing/hole annulus volume.

Tail Cement: 211 sx 50/50 POZ – Standard cement + 2% Bentonite + 6#/sx Pheno Seal; (1.33 yield = 280.3 cf); Cement Density – 13.5 ppg; Water required – 5.52 gal/sx; Compressive strength – Sample cured at 130 deg F for 24 hrs – 2 hrs 5 min – 50 psi; 2 hr 6 min – 500 psi; 12 hr – 1250 psi; 24 hrs – 1819 Cement to surface with 150% excess of casing/hole annulus volume.

Production String *:

Cement: 461 sx 50/50 POZ – Standard cement + 3% Bentonite + 5#/sx PhenoSeal + 0.2% CFR-3 Friction Reducer + 0.1% HR-5 Retarder + 0.8% Halad-9 Fluid Loss Additive (1.45 Yield – 668.2 cf) Cement density – 13.1 ppg; Water required 6.47 gal/sx; Compressive Strength – Sample cured at 200 de F for 23 hrs; 9 hr 50 min – 50 psi; 13 hrs 45 min – 500 psi; 16 hrs – 1500 psi; 23 hrs 2525 psi.

*The production casing cement is calculated to cover the openhole interval with 50% excess and annular volume 200' within intermediate shoe. Depending on hole conditions, the well may be cemented in a single stage or two staged.

Centralizer Program:

Surface: Total four (4) - 1st joint - 10' above the shoe & 1 at the top of the 2nd, 3rd and 4th joints latched over the casing collar

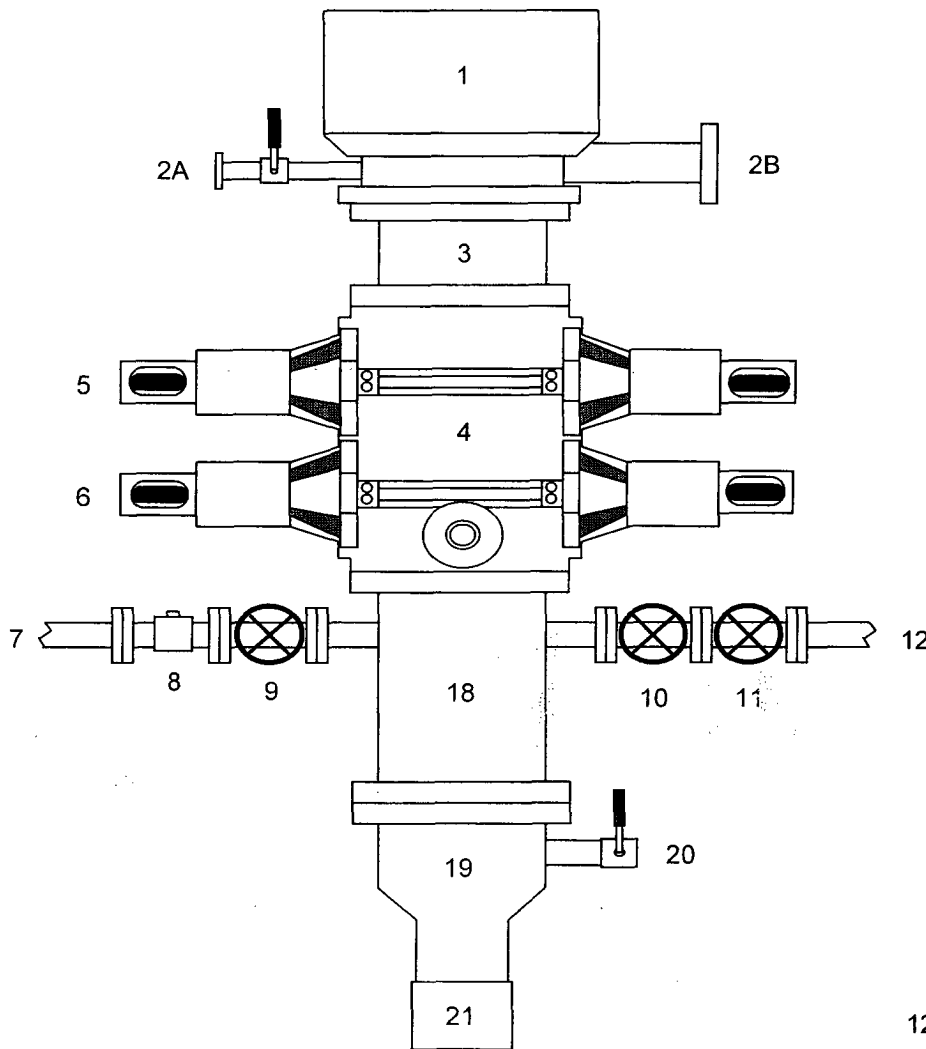
Intermediate: Total seven (9) – 10' above shoe, top of 2nd, 4th, 6th, & 8th, 10th jts & 10th 1 jt. above surface casing, and on first two casing collars below the wellhead. .

Production: None planned.

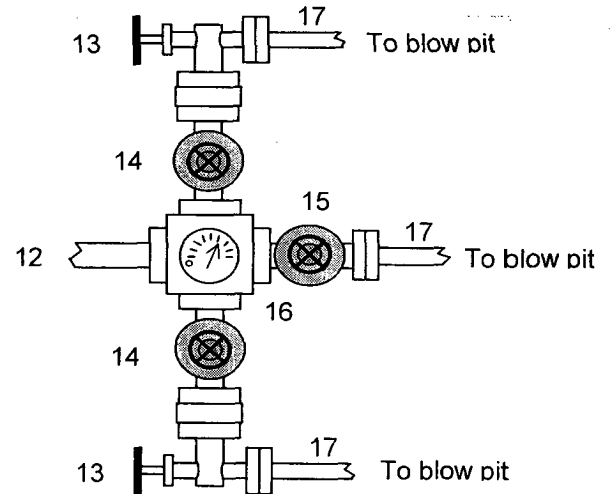
Turbulators: Total Three (3) – on intermediate casing at 1st jt. below the Ojo Alamo and next 2 jts up.

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to Intermediate Casing Point & Setting 7" Intermediate Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Flowline
3. Spacer Spool
4. Double Ram BOP (11", 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. Mud Cross Spacer Spool
19. Casing Head "A" Section
20. Casing Head "A" Section 2" Valve
21. 9 5/8" Casing Collar



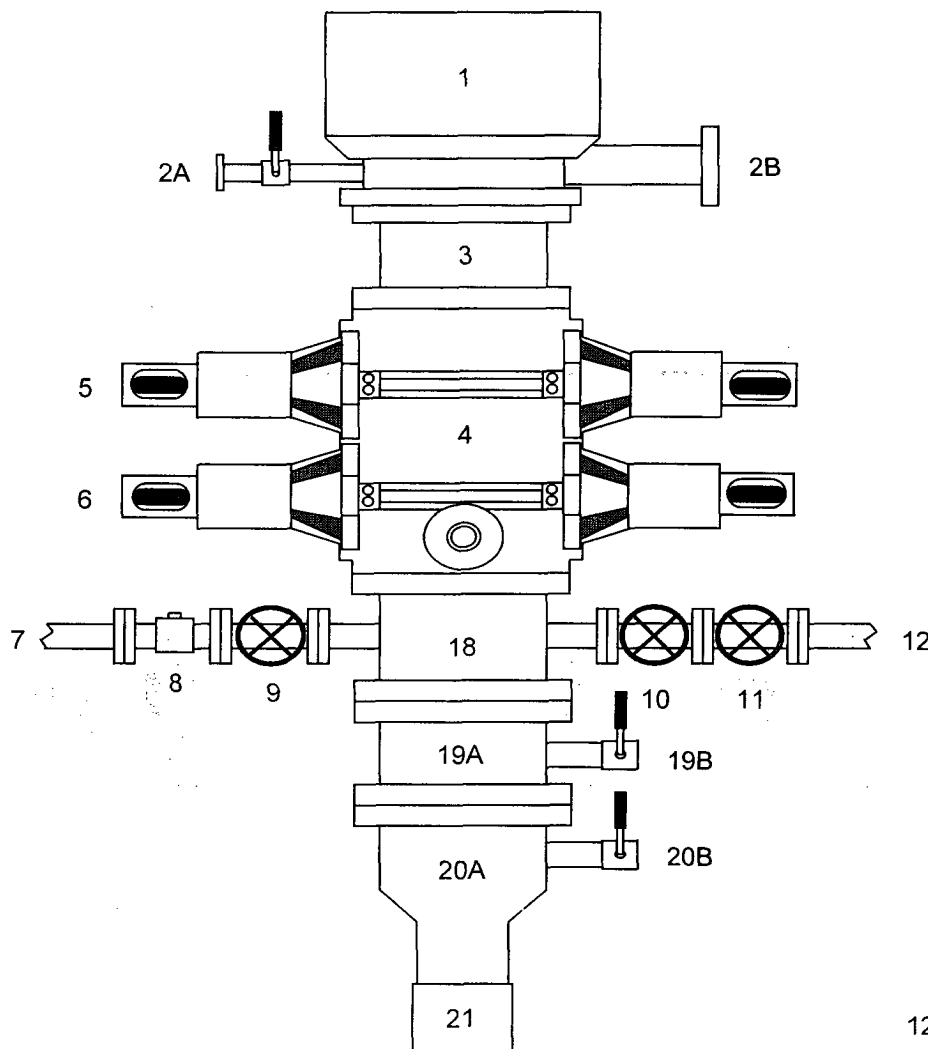
A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe rams and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 2-3 minutes and to 1000 psi (high pressure test) for 10 minutes. Then the test plug will be removed and the **9-5/8" casing will be pressure tested** against closed blind rams to 200 psi to 300 psi for 2-3 minutes and **to 1000 psi for 30 minutes** (this value is one 44% of the minimum internal yield pressure of the 9-5/8" casing). An 8-3/4" hole will be drilled to intermediate casing point and 7" casing will be run and cemented.

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

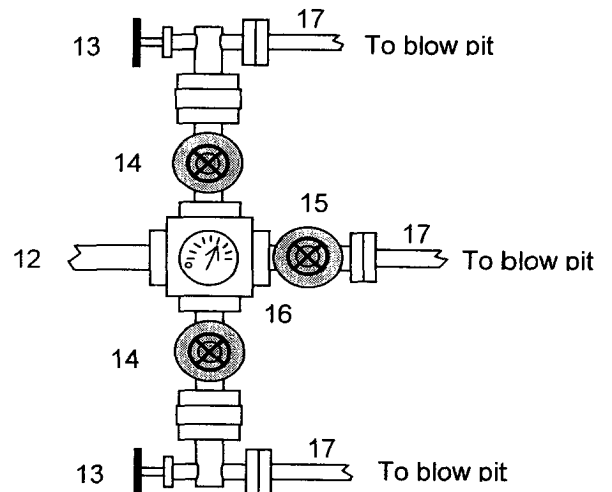
1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Bloopie Line (for Air Drilling)
3. Spacer Spool
4. Double Ram BOP (11", 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. Mud Cross Spacer Spool
- 19A Csg Spool "B" Section (11", 3M)
- 19B "B" Section Csg Valve (2", 3M)
- 20A Csg Head "A" Section (11", 3M)
- 20B "A" Section Csg Valve (2", 3M)
21. 9 5/8" Casing Collar



After the 7" intermediate casing has been run and cemented, the Casing Spool ("B" Section) will be installed on the wellhead ("A" Section) and the BOP will be installed on the Casing Spool. A test plug will be set in the wellhead and the pipe rams, blind rams, and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 2-3 minutes and to 3000 psi (high pressure test) for 10 minutes. Then the test plug will be removed and the 7" casing will be pressure tested against closed blind rams to 200 psi to 300 psi for 2-3 minutes and to 1800 psi for 30 minutes - this test pressure is 48% of the minimum internal yield strength of 3740 psi for the 7", 20#, J-55, STC casing. Then we will air drill the 6-1/4" hole to TD and run and cement the 4-1/2" casing.

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

San Juan 29-6 Unit #78M
NMSF080377 – Unit D, 595' FNL & 345' FWL
Section 22, T29 R6; Rio Arriba County, NM

Cathodic Protection

ConocoPhillips proposes to drill a cathodic protection deep well groundbed for the subject well. Will drill a 6-7/8" hole to an anticipated minimum depth of 300' (maximum depth of 500'). Cement plugs will not be used unless more than one water zone is encountered. Prior drilling history for the area indicates only one zone to that depth. If more than one water zone is encountered, notification will be made and details of cement and casing will be provided.

All drilling activity will remain on existing well pad and a Farmington based company will be doing the drilling for ConocoPhillips.

See attached drawing on proposed placement of groundbed & underground AC & DC cables and rectifier.