

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. NMSF078655
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 CONOCOPHILLIPS COMPANY		7. If Unit or CA Agreement, Name and No.
Contact: PATSY CLUGSTON E-Mail: pclugs@ppco.com		8. Lease Name and Well No. AZTEC 201A
3a. Address 5525 HWY. FARMINGTON, NM 87401	3b. Phone No. (include area code) Ph: 505.599.3454 Fx: 505-599-3442	9. API Well No. 30045 32179
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSE 890FSL 1455FEL 36.98042 N Lat, 107.90054 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* 11 MILES NORTHWEST OF AZTEC, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 17 T32N R10W Mer NMP SME: BLM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in Lease 3215 MD 3215 TVD	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 3215 MD 3215 TVD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6352 GL	22. Approximate date work will start 04/01/2004	17. Spacing Unit dedicated to this well 311.48 E/2
23. Estimated duration 30 DAYS		20. BLM/BIA Bond No. on file ES0085

24. Attachments

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

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- 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 02/16/2004
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) David J. Mankiewicz	Name (Printed/Typed)	APR - 6 2004
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 #27944 verified by the BLM Well Information System  
For CONOCOPHILLIPS COMPANY, sent to the Farmington

REGULATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.8  
and appeal pursuant to 43 CFR 3165.4

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

NMOC

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 <b>30-015-32179</b>		*Pool Code <b>71629</b>	*Pool Name <b>BASIN FRUITLAND COAL</b>
*Property Code <b>31320</b>	*Property Name <b>AZTEC</b>		*Well Number <b>201A</b>
*GRID No. <b>217817</b>	*Operator Name <b>CONOCOPHILLIPS COMPANY</b>		*Elevation <b>6352'</b>

10 Surface Location

UL or lot no.	Section	Township	Range	Lot 1th	Feet from the	North/South line	Feet from the	East/West line	County
<b>0</b>	<b>17</b>	<b>32N</b>	<b>10W</b>		<b>890</b>	<b>SOUTH</b>	<b>1455</b>	<b>EAST</b>	<b>SAN JUAN</b>

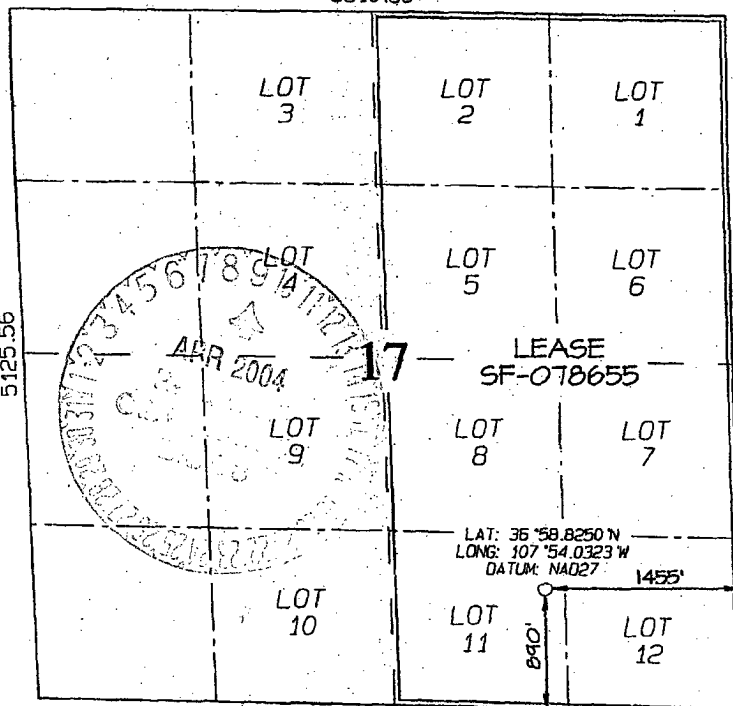
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1th	Feet from the	North/South line	Feet from the	East/West line	County

*Dedicated Acres <b>311.48 Acres - (E/2)</b>	*Joint or Infill	*Consolidation Code	*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

5310.36'



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*Vicki R. Westby*  
Signature  
Vicki R. Westby  
Printed Name  
Sr. Analyst  
Title  
*February 11, 2004*  
Date

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.

Survey Date: NOVEMBER 11, 2003

Signature and Seal of Professional Surveyor



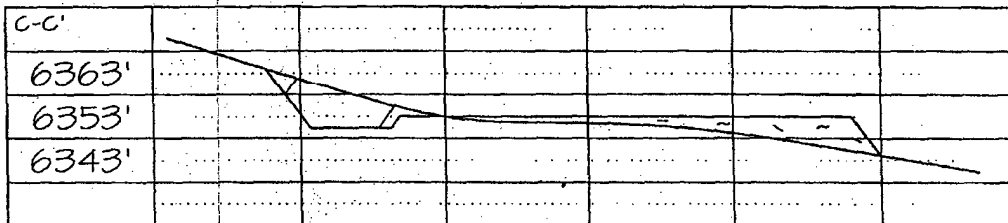
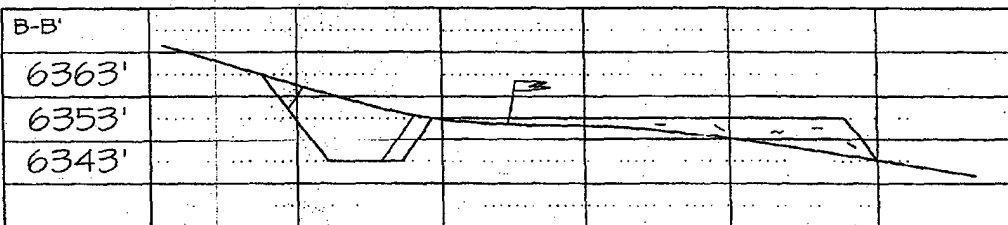
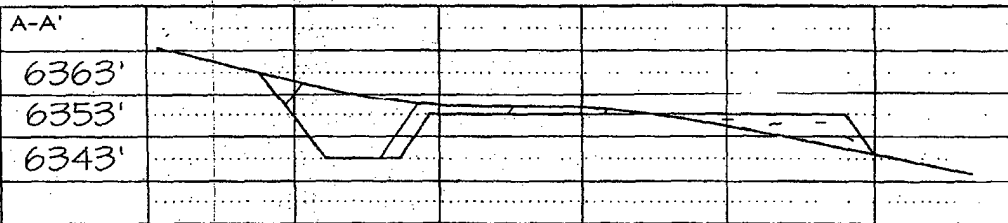
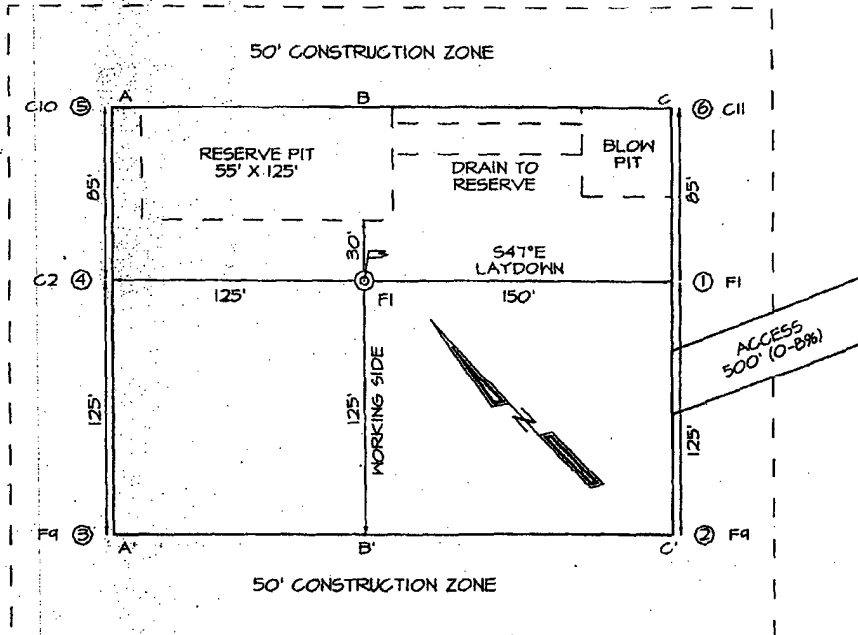
*Jason C. Edwards*  
Certificate Number 15269

**CONOCOPHILLIPS COMPANY AZTEC #201A**  
**890' FSL & 1455' FEL, SECTION 17, T32N, R10W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6352'**

**LATITUDE: 36.98042° N**  
**LONGITUDE: 107.90084° W**  
 DATUM: NAD1927

PLAT NOTE:

\*SURFACE OWNER:  
 Bureau of Land  
 Management



FILE NAME: 32101707

SHEET 2 OF 6

NCE SURVEYS, INC.

DRAWN BY: EDO

CHECKED BY: JCE

CONOCOPHILLIPS COMPANY

WELL NAME: Aztec #201A - HPA well

DRILLING PROGNOSIS

1. Location of Proposed Well: Unit O, 890 FSL & 1455 FEL  
Section 17, T32N, R10W

2. Unprepared Ground Elevation: @ 6352'

3. The geological name of the surface formation is San Jose.

4. Type of drilling tools will be rotary.

5. Proposed drilling depth is 3215'.

6. The estimated tops of important geologic markers are as follows:

<u>Nacimiento -</u>	<u>13'</u>	<u>Base of Main Coal -</u>	<u>3125'</u>
<u>Ojo Alamo -</u>	<u>1405'</u>	<u>PC Interval -</u>	<u>3135'</u>
<u>Kirtland -</u>	<u>1455'</u>	<u>Intermediate casing -</u>	<u>2840'</u>
<u>Fruitland -</u>	<u>2710'</u>	<u>Total Depth -</u>	<u>3215'</u>

TD includes 90' of sump/rathole & COPC will comply with the BLM/OCD's Conditions of Approval for the proposed sump/rathole in this non-producing Pictured Cliffs Formation.

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 -</u>	<u>1405' - 1455'</u>
Oil:	<u>none</u>	
Gas:	<u>Fruitland Coal -</u>	<u>2710' - 3125'</u>
Gas & Water:	<u>Fruitland Coal -</u>	<u>2710' - 3125'</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 @ 2840'

Production Liner: 5-1/2", 15.5# J/K-55 @ 2820' - 3215' (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: 150.2 sx Class G cement with 2% bwoc CaCl<sub>2</sub> (S001), 0.25#/sx  
Cello-Flake (D029) 1.16 cuft/sx yield = 174.27 cf

*Circulate cement*

9. Cement program: (continued from Page 1)

Intermediate String:

*Circulate cement*  
Lead Cement: 350 sx Class G w/3% D079 (Extender) 0.25#/sx D029 (Cellephone flakes, + 0.2% D046 Flocele (All purpose antifoam agent) mixed at 11.7 ppg and yield of 2.61 cuft/sx = 914.29 cf.

Tail: 96 sx - 50/50/G/POZ cement w/2% D020 (Bentonite Extender), 2% S001 (CaCl<sub>2</sub>), 5#/sx D024 (Gilsonite), 1/4#/sx D029 (Celephane flakes) & 2% D046 (all purpose antifoam agent) @ a weight of 13.5 ppg and yield of 1.27 cuft/sx = 122.29 cf.

Note: ConocoPhillips Company continually works to improve the cement slurries on our wells. Our Cementing Service Companies are 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:

- A 5 1/2" 15.5# liner will be run in the open hole without being cemented.

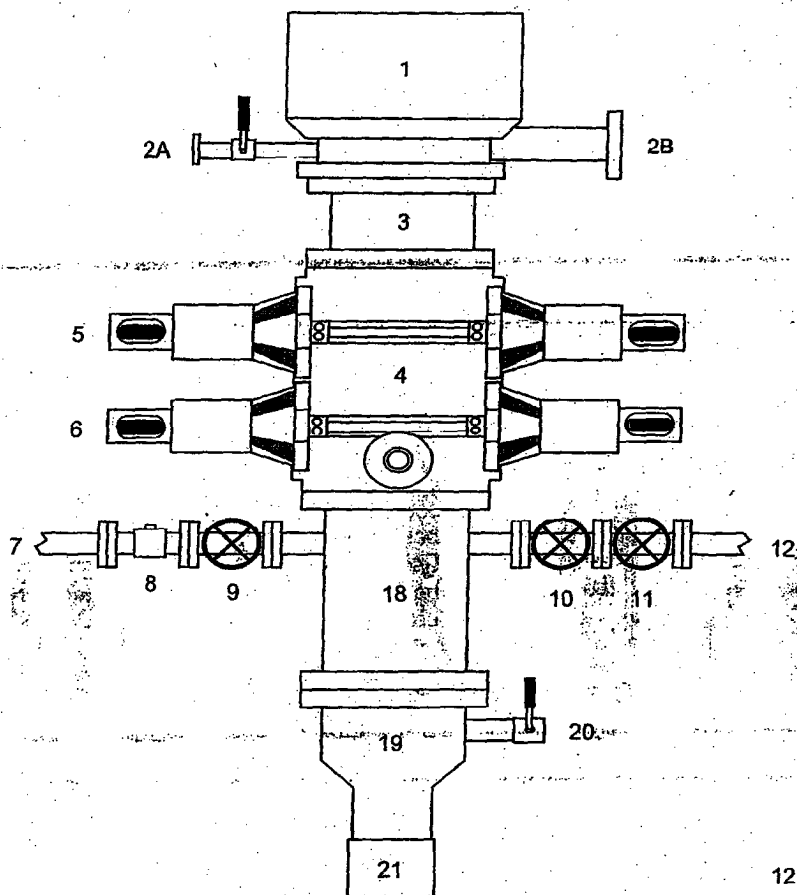
Completion - depending on well conditions the:

- Well will either be cavitaged and a 5-1/2" liner will be run without being cemented, or
- Well will be underreamed, tubing will be set and cavitaged at a later date.

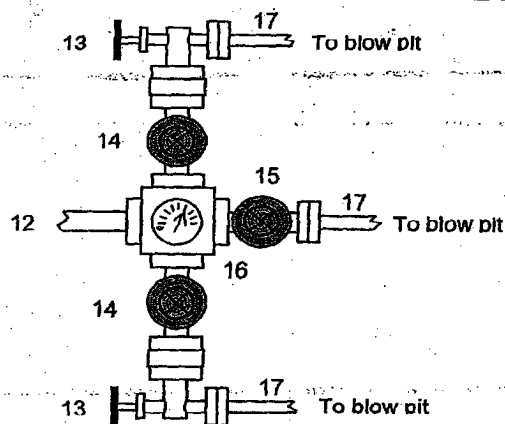
10. The minimum specifications for pressure control equipment which are to be used, a schematic diagram thereof showing sizes, pressure ratings (or) API series and the testing procedure and testing frequency are enclosed within the APD packet.
11. Drilling Mud Prognosis: Surface - spud mud on surface casing.  
Intermediate - fresh water w/polymer sweeps. Bentonite as required for viscosity.  
Below Intermediate - air drilled.

# 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



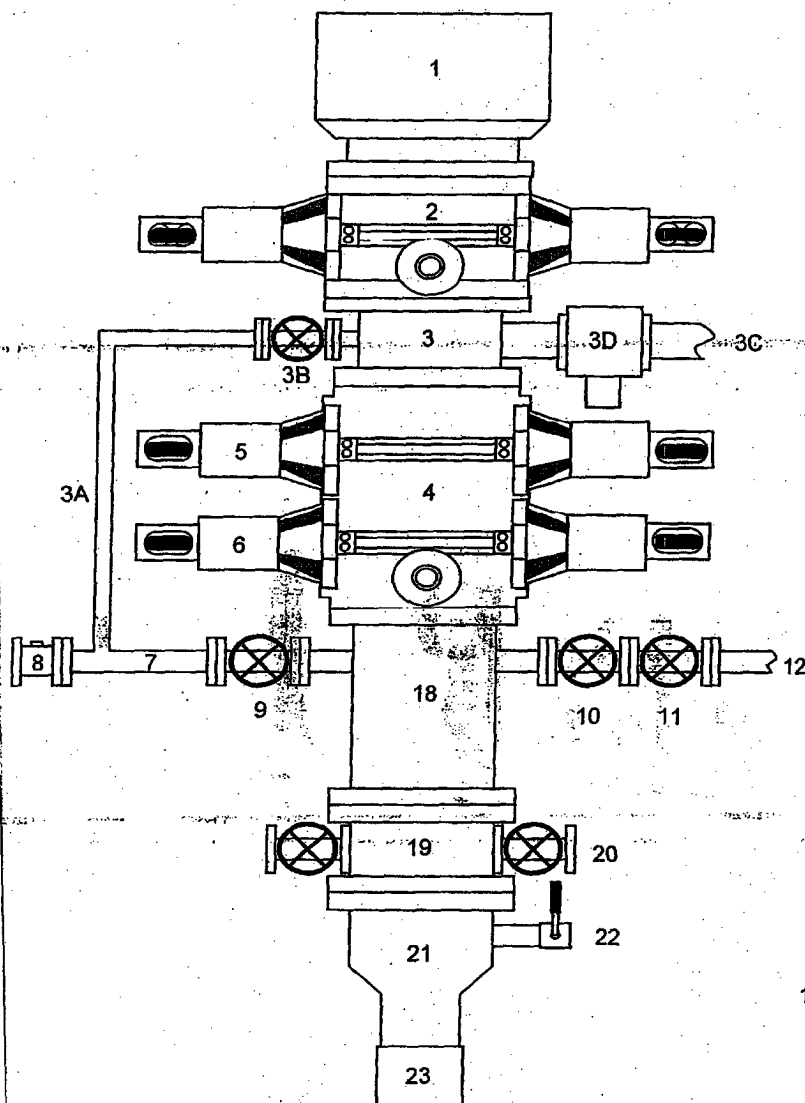
This BOP arrangement is for the drilling operations from the time the 9-5/8" surface casing is set through the setting of the 7" intermediate casing. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. The Pipe Rams, Blind Rams, Choke Manifold, and 9-5/8" surface casing will be tested to a low pressure test of 200 psi to 300 psi and to a high pressure test of **1000 psi** (this value is 44% of the minimum internal yield pressure of the 9-5/8" casing). We will drill the 8-3/4" hole to intermediate casing point and run and cement the 7" intermediate casing. Then we will nipple down the BOP, install a trash cap, & move out the drilling rig. We will install the casing spool on the 7" stub after the drilling rig is moved off location. At a later date we will move in the cavitation rig for the cavitation program.

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

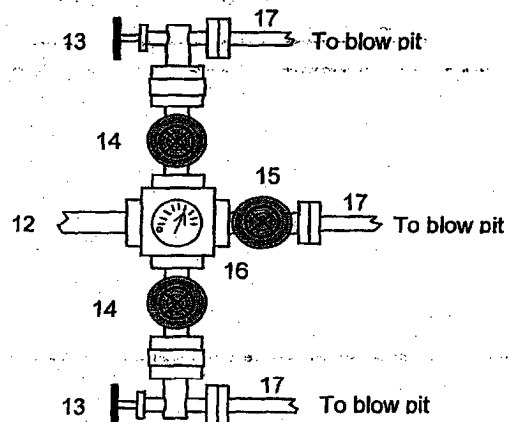
1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

## BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Cavitation Program



1. Rotating Head
2. Single Ram BOP (7-1/16", 3M)
3. Mud Cross
- 3A. Equalizing Line (2")
- 3B. Wing Valve (2-1/16", 3M)
- 3C. Bleeie Line (2 ea, 5" OD)
- 3D. HCR Valve (1 ea per line, 4-1/16")
4. Double Ram BOP (7-1/16", 3M)
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. Vent Line (2")
18. Spacer Spool
19. Tubing Head
20. Tubing Head Valves (2- 9/16")
21. Casing Head "A" Section
22. Casing Head "A" Section 2" Valve
23. 9-5/8" Casing Collar



This BOP arrangement and test program is for the cavitation program. The BOP will be installed on the tubing head. 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. The pipe rams and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 2-3 minutes and to 1800 psi (high pressure test) for 10 minutes - This test will be done with a test plug or possibly without a test plug (ie against casing). If we conduct this test without a test plug we will ensure that we have sufficient drillstring weight in the hole to exceed the upward force generated by the test.

We use a power swivel and air/mist to drill the 6-1/4" hole in our cavitation program. - We do not use a kelly. In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

1. String floats will be used inside the drillpipe
2. Stab in TIW valve for all drillstrings in use
3. Each bleeie line is equipped with a hydraulically controlled valve (HCR valve).

### Blowout Preventer Equipment (BOPE)

ABHP = 100 PSI; TVD = 3,215 Feet; Mud Weight = 8.34

Operator's Gradient (ABHP / TVD) = 0.031 PSI/Ft is / is not appropriate and does / does not coincide with the Anticipated Mud Weight for each drilled interval.  
The most credible ABHP is 0.031 PSI/Ft.

Mud Weight x 0.05195 = Gradient

$$\underline{8.34} \times 0.05195 = \underline{0.433}$$

ABHP - (0.22 x TVD) = ASP

$$\underline{100} - (0.22 \times \underline{3215}) = \underline{-607} \text{ psi}$$

Operator's proposed BOPE of 2 M exceeds / does not exceed the ASP and is therefore adequate / not adequate.

Note ASP - Anticipated Surface Pressure  
ABHP - Anticipated Bottom Hole Pressure

(Decmin) = ASP / (GR - .22)



**Aztec #201A**  
**NMSF078655; Unit O, 890 FSL & 1455 FEL**  
**Section 17, T32N, R10W; San Juan 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.

# ConocoPhillips

San Juan Area  
5525 Hwy. 64  
Farmington, NM 87401

February 16, 2004

(Certified Mail – Return Receipt Requested – 7001 0320 0004 8670 2978)

Re: Aztec #201A  
Basin Fruitland Coal  
890 FSL & 1455 FEL, Section 17, T32N, R10W  
San Juan County, New Mexico

To the Affected Parties:

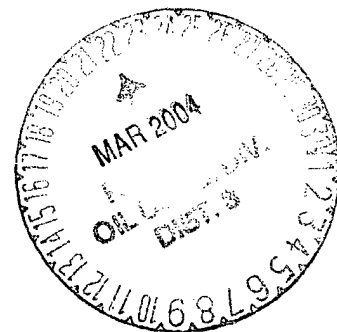
ConocoPhillips Company is submitting the enclosed Application for Permit to Drill to the appropriate regulatory agency(s) for approval. This well is located inside the High Productivity Area of the Basin-Fruitland Coal Pool as indicated on the attached plat. Notice is being made pursuant to New Mexico Oil Conservation Commission Order R-8768-F dated July 17, 2003.

The affected parties have twenty (20) days from receipt of this notice in which to file with the District Office of the New Mexico Oil Conservation Division written objection to the proposed Application for Permit to Drill.

Sincerely

Patsy Clugston  
Regulatory Analyst

cc: NMOCD Aztec  
Well File





San Juan Area  
5525 Hwy. 64  
Farmington, NM 87401

February 16, 2004

(Certified Mail – Return Receipt Requested – 7001 0320 0004 8670 2961)

Re: Aztec #201A  
Basin Fruitland Coal  
890 FSL & 1455 FEL, Section 17, T32N, R10W  
San Juan County, New Mexico

To the Affected Parties:

ConocoPhillips Company is submitting the enclosed Application for Permit to Drill to the appropriate regulatory agency(s) for approval. This well is located inside the High Productivity Area of the Basin-Fruitland Coal Pool as indicated on the attached plat. Notice is being made pursuant to New Mexico Oil Conservation Commission Order R-8768-F dated July 17, 2003.

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Sincerely

Patsy Clugston  
Regulatory Analyst

cc: NMOCD Aztec  
Well File

**Aztec #201A – HPA “Affected Parties”**

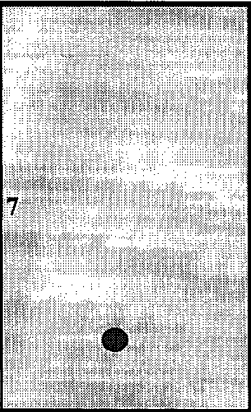
Burlington Resources O & G  
P.O. Box 4289  
Farmington, NM 87499-4289

BP Amoco  
Attn: Bryan Anderson  
501 West Lake Park Blvd.  
West Lake 1 Room 19.128  
Houston, TX 77079

**Aztec #201A**  
 OFFSET OPERATOR PLAT

TOWNSHIP 32 NORTH, RANGE 10 WEST

890' FSL; 1455' FEL

BP America Production		Burlington Resources O & G
BP America Production		Burlington Resources O & G
Burlington Resources O & G	Burlington Resources O & G	Burlington Resources O & G