

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. SF-079004
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <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: VICKI WESTBY E-Mail: Vicki.R.Westby@conocophillips.com		8. Lease Name and Well No. SAN JUAN 32-8 UNIT 225A
3a. Address 4001 PENBROOK, SUITE 346 ODESSA, TX 79762	3b. Phone No. (include area code) Ph: 915.368.1352	9. API Well No. 30045 32398
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NENW 1025FNL 1545FWL 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. Sec., T., R., M., or Blk. and Survey or Area Sec 15 T31N R8W Mer NMP
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	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 3557 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6589 GL	22. Approximate date work will start	17. Spacing Unit dedicated to this well 320 w/p
		20. BLM/BIA Bond No. on file
		23. Estimated duration

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 (Electronic Submission)	Name (Printed/Typed) VICKI WESTBY	Date 05/25/2004
Title AGENT		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 7-12-04
Title AFM	Office FFD	

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)

HPA No Notification needed

Electronic Submission #31111 verified by the BLM Well Information System  
For CONOCOPHILLIPS COMPANY, sent to the Farmington

DRILLING 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

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

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 <b>30045-32398</b>		Pool Code 71629	Pool Name BASIN FRUITLAND COAL
Property Code 31330	Property Name SAN JUAN 32-8 UNIT		Well Number 225A
OGRID No. 217817	Operator Name CONOCOPHILLIPS COMPANY		Elevation 6589'

<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
C	15	31N	8W		1025	NORTH	1545	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
<sup>12</sup> Dedicated Acres 320.0 Acres - W/2					<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<div><p><sup>16</sup></p><p>LAT: 36°54.0897' N LONG: 107°39.9373' W DATUM: NAD27</p><p>1545'</p><p>1025'</p><p>5126.22'</p><p>5204.76'</p><p>15</p><p>LEASE SF-079004</p><p>5237.10'</p></div>	<div><p><sup>17</sup> 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 <i>May 25, 2004</i></p></div>
	<div><p><sup>18</sup> 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>Date of Survey: APRIL 28, 2004</p><p>Signature and Seal of Professional Surveyor</p><div><p>JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR</p></div><p><i>JASON C. EDWARDS</i> Certificate Number 15269</p></div>

Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
March 4, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO.

5. Indicate Type of Lease

STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

San Juan 32-8 Unit

8. Well Number

225A

9. OGRID Number

217817

10. Pool name or Wildcat

Basin Fruitland Coal

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH  
PROPOSALS.)

1. Type of Well:

Oil Well ☐ Gas Well ☒ Other

2. Name of Operator

ConocoPhillips Company

3. Address of Operator

4001 Penbrook, Odessa, TX 79762

4. Well Location

Unit Letter C : 1025 feet from the North line and 1545 feet from the West line

Section 15 Township 31N Range 8W NMPM San Juan County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

6589' GL

Pit or Below-grade Tank Application (For pit or below-grade tank closures, a form C-144 must be attached)

Pit Location: UL C Sect 15 Twp 31N Rng 8W Pit type Drill Pit Depth to Groundwater >100' Distance from nearest fresh water well >1 000'

Distance from nearest surface water >200' <1000' Below-grade Tank Location UL  Sect  Twp  Rng  ;  feet from the  
line and  feet from the  line

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: Drill Pit Notification ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

ConocoPhillips Company's Generic Pit Plan is on file at NMOCD in Aztec, NM. See the attached diagram that details the location of the pit in reference to the proposed wellhead. The drill pit will be lined. The drill pit will be closed after the well has been completed. The solids left after the water has been disposed of will be sampled and NMOCD approval will be obtained prior to closure of this pit.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Vicki Westby TITLE Sr. Analyst DATE 5/25/04

Type or print name Vicki Westby E-mail address: Vicki.R.Westby@conocophillips.com Telephone No. 432-368-1352

(This space for State use)

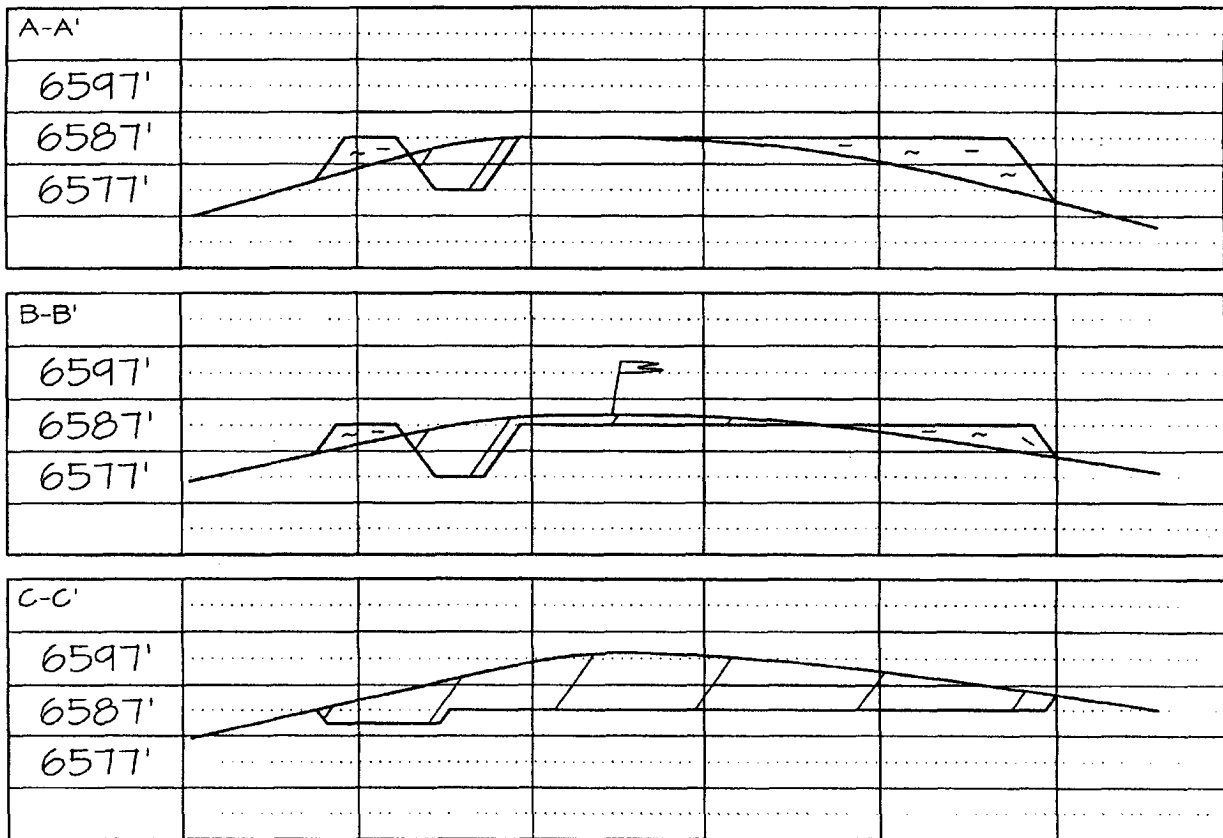
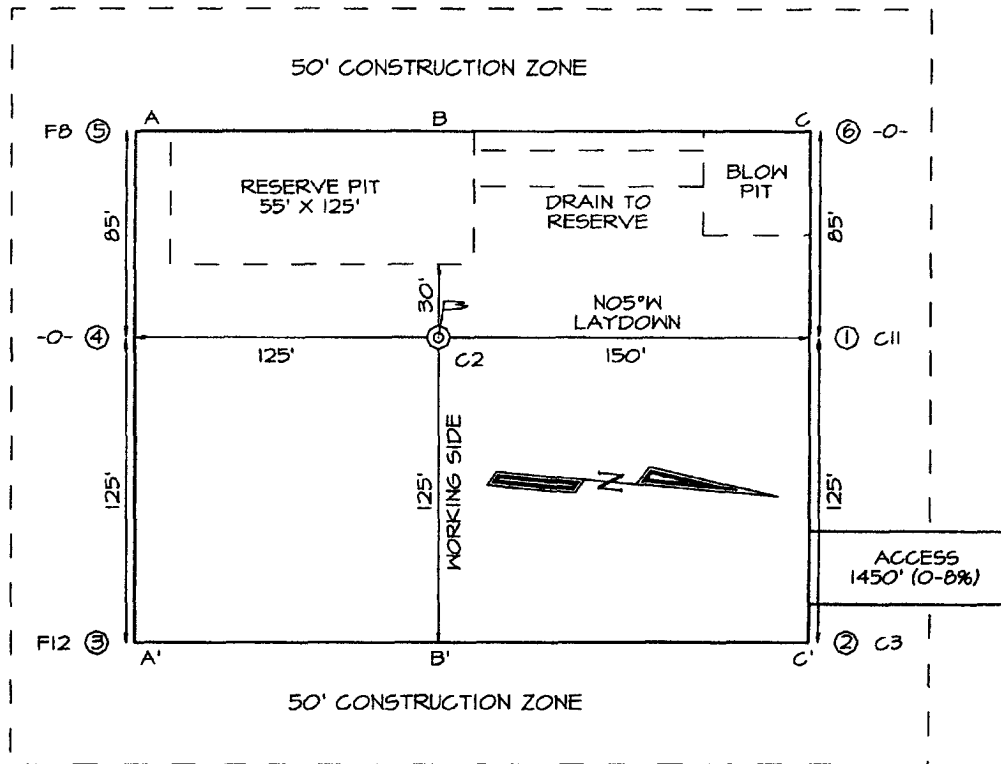
APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. IV DATE JUL 22 2004  
Conditions of approval, if any:

**CONOCOPHILLIPS COMPANY SAN JUAN 32-8 UNIT #225A**  
**1025' FNL & 1545' FWL, SECTION 15, T31N, R8W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6589'**

**LATITUDE: 36.90149° N**  
**LONGITUDE: 107.66562° W**  
 DATUM: NAD1927

PLAT NOTE:

\*SURFACE OWNER\*  
 Bureau of Land  
 Management



## CONOCOPHILLIPS COMPANY

WELL NAME: San Juan 32-8 #225A

### DRILLING PROGNOSIS

1. Location of Proposed Well: 1025' FNL & 1545' FWL  
Section 15, T31N, R8W
2. Unprepared Ground Elevation: @ 6589'
3. The geological name of the surface formation is San Jose.
4. Type of drilling tools will be rotary.
5. Proposed drilling depth is 3557'.
6. The estimated tops (MD RKB) of important geologic markers are as follows:  
Note: RKB is 13' above ground level.

<u>San Jose -</u>	<u>13'</u>	<u>Base of Lowest Coal -</u>	<u>3477'</u>
<u>Nacimiento -</u>	<u>702'</u>	<u>Total Depth -</u>	<u>3557'</u>
<u>Ojo Alamo -</u>	<u>2252'</u>		
<u>Kirtland Shale -</u>	<u>2352'</u>		
<u>Fruitland -</u>	<u>3049'</u>		
<u>Intermediate Csg -</u>	<u>3212'</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 -</u>	<u>2252' - 2352'</u>
Oil:	<u>none</u>	
Gas:	<u>Fruitland Coal -</u>	<u>3049' - 3557'</u>
Gas & Water:	<u>Fruitland Coal -</u>	<u>3049' - 3557'</u>
8. The proposed casing program is as follows:  
Surface String: 9-5/8", 32.3#, H-40, ST &C @ 200' below ground level\*  
Intermediate String: 7", 20#, J-55, ST&C @ 3212' MD RKB  
Prod Liner Option: 5-1/2", 15.5#, J-55, LT &C @ 3192' - 3557' MD RKB

\* The surface casing will be set at a minimum of 200' below ground level, but could be set deeper if required to maintain hole stability.
9. Cement Program:  
Surface String: 150 sx Class G cement with 1.16 cuft/sx yield, 2% bwoc CaCl2 (S001), 0.25#/sx Cellophane Flake (D029) = 174.0 cf . Cement will circulate to surface.

9. Cement program: (continued from Page 1)

**Intermediate String:**

**Lead Cement:** 417 sx Class G w/3% D079 (chemical extender) 0.25#/sx D029 (Cellophane flakes), 0.05 GPS D047 (antifoam agent) 0.2% D046 (antifoam agent) mixed at 11.7 ppg and yield of 2.61 cuft/sx = 1088 cf. Lead slurry Cement will circulate to surface.

**Tail:** 100 sx – 50/50/G/POZ cement w/2% D020 (bentonite extender), 2% S001 (CaCl<sub>2</sub>), 5#/sx D024 (gilsonite), ¼#/sx D029( cellophane flakes) & 2% D046 (antifoam agent) @ a weight of 13.5 ppg and yield of 1.27 cuft/sx = 127.0 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.

10. Cavitation Option: Depending on well conditions the well may be cavitated or may be completed without cavitation.
11. Production liner option: Depending on well conditions a 5-1/2" liner may be run or the well may be completed without a liner. If a liner is run, it would be run without a liner hanger – or possibly with a liner hanger – and would be left uncemented.
12. Perforations: If a liner is run, it will be perforated using electric line perforating guns in the Fruitland Coal interval(s).
13. Tubing will be run in either flowing well configuration or in pumping well configuration. The size of tubing run and the configuration (either pumping or flowing configuration) will be dependent on the well conditions and flow test results. Our proposed options for the tubing string are as follows:

**Pumping Well Configuration:**

- Mud Anchor consisting of one joint 2-7/8" tubing, orange peeled, with slots in the upper 2' of the joint below the upset.
- 2-7/8" x 2-3/8" x-over
- 2-3/8" OD x 1.78" ID F-Nipple
- 2-3/8", 4.7#, J-55, EUE 8RD tubing to surface
- Insert pump run on rods and set in F-Nipple

**2-3/8" Flowing Well Configuration:**

- 2-3/8" OD x 1.78" ID F-Nipple
- 2-3/8", 4.7#, J-55, EUE 8RD tubing to surface

**2-7/8" Flowing Well Configuration:**

- 2-7/8" OD x 2.5" ID F-Nipple
- 2-7/8", 6.5#, J-55, EUE 8RD tubing to surface

**3-1/2" Flowing Well Configuration:**

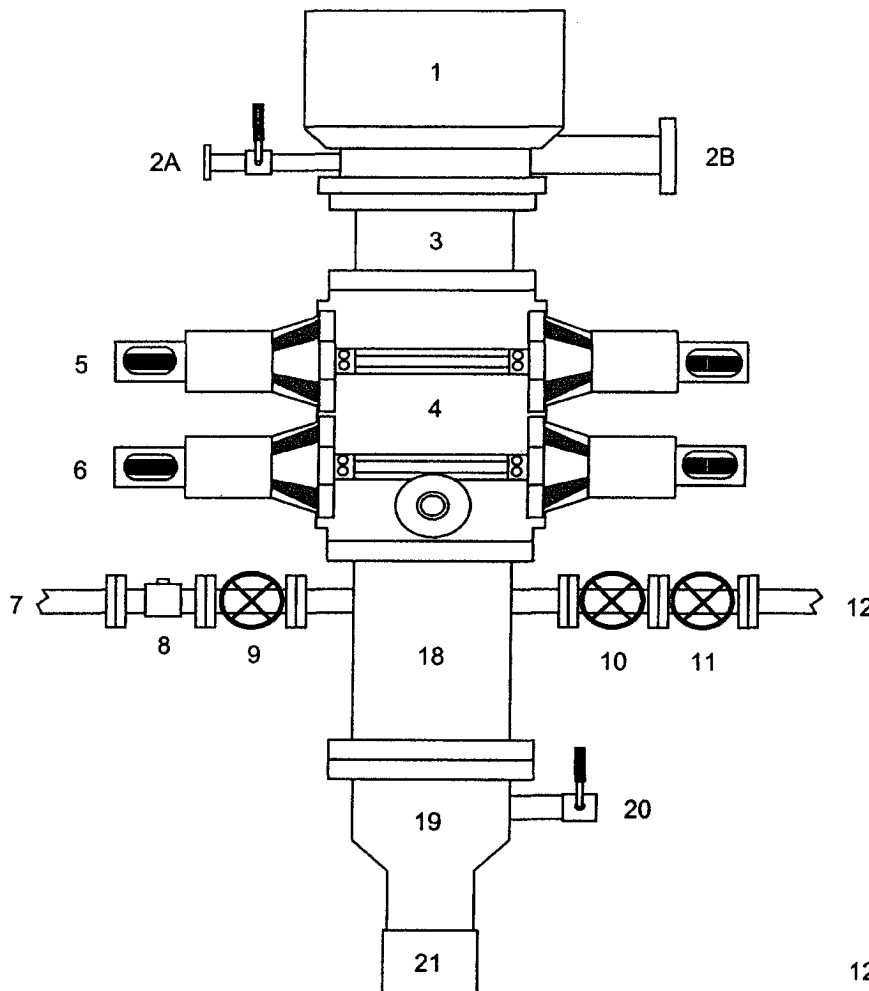
- 3-1/2" OD x 1.78" ID F-Nipple
- 3-1/2", 9.2# J-55 FL4S (as an option inside the liner or in the open hole)
- 3-1/2" 9.3# J-55 EUE 8rd tubing to surface

14. 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.
15. Drilling Mud Prognosis:
  - Surface - spud mud on surface casing.
  - Intermediate - fresh water w/polymer sweeps. Bentonite as required for viscosity.
  - Below Intermediate – air / water mist drilling media with foamer and polymer as needed for hole stability and with corrosion inhibitor.
16. The testing, logging, and coring programs are as follows:
  - D.S.T.s: Flow Tests and Shut-In pressure build up tests will be taken as needed in the Fruitland coal interval.
  - Cores: None
  - Logs: Mud log from intermediate casing shoe to TD
17. Anticipated no abnormal pressures or temperatures to be encountered or any other potential hazards such as Hydrogen Sulfide Gas. Low risk H2S equipment will be used.

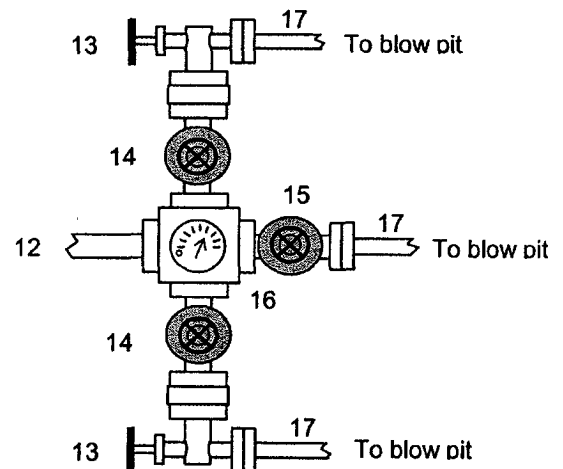
**Estimated Bottomhole pressures: Fruitland Coal - +/- 180 psi**

# 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). (Note: per regulatory requirements we will wait on cement at least 8 hrs after placement before testing the 9-5/8" surface casing). Then an 8-3/4" hole will be drilled to intermediate casing point and 7" intermediate casing will be run and cemented.

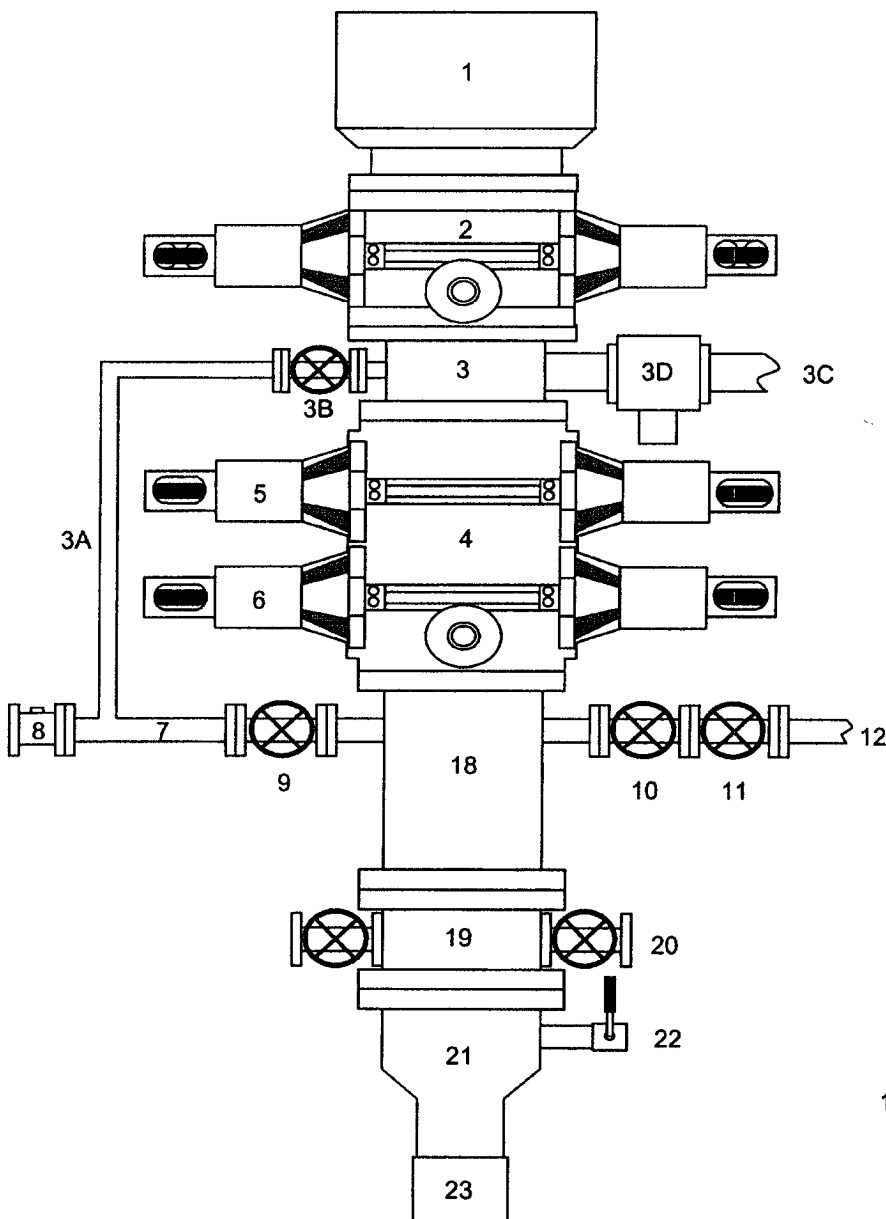
In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

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

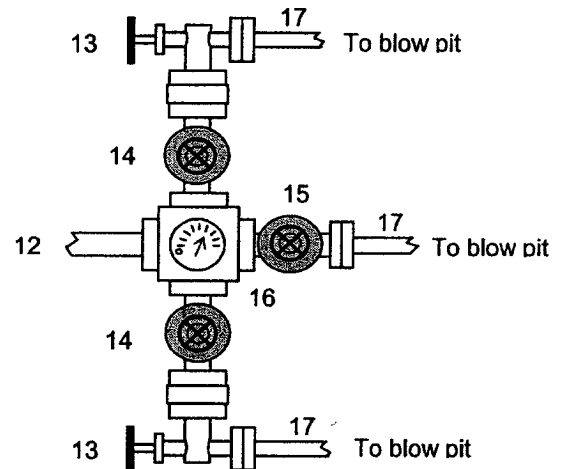


# BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

## For 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. Blooie 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 blooie line is equipped with a hydraulically controlled valve (HCR valve).