

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number SF-080675 Unit Reporting Number 670 Farmington, NM	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>BURLINGTON</b> RESOURCES Oil & Gas Company	7. Unit Agreement Name San Juan 27-4 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87401 (505) 326-9700	8. Farm or Lease Name San Juan 27-4 Unit 9. Well Number #133M	
4. Location of Well 1310' FSL, 530' FWL Latitude 36° 32.4412'N, Longitude 107° 14.7038'W	10. Field, Pool, Wildcat Blanco Mesaverde/Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) M Sec. 27, T27N, R04W API # 30-039- 27649	
14. Distance in Miles from Nearest Town 19 miles to Gobernador	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 530'	17. Acres Assigned to Well 320 W/2 DK 320 W/2 MV	
16. Acres in Lease		
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 1800'		
19. Proposed Depth 8230'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6940' GR	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Joni Clark</u> Regulatory Specialist	<u>2/6/04</u> Date	

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY Jim Gato TITLE Acting Field Manager - Minerals DATE 7/6/05

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes 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 presentations as to any matter within its jurisdiction.

District II  
PO Drawer DD, Artesia, NM 88211-0719OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 CopiesDistrict III  
1000 Rio Brazos Rd., Aztec, NM 87410District IV  
PO Box 2088, Santa Fe, NM 87504-2088☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039- <u>27649</u>		*Pool Code 72319/71599	*Pool Name Blanco Mesaverde/Basin Dakota
*Property Code <u>7254</u> <u>7452</u>	*Property Name SAN JUAN 27-4 UNIT		*Well Number 133M
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP		*Elevation 6940'

## 10 Surface Location

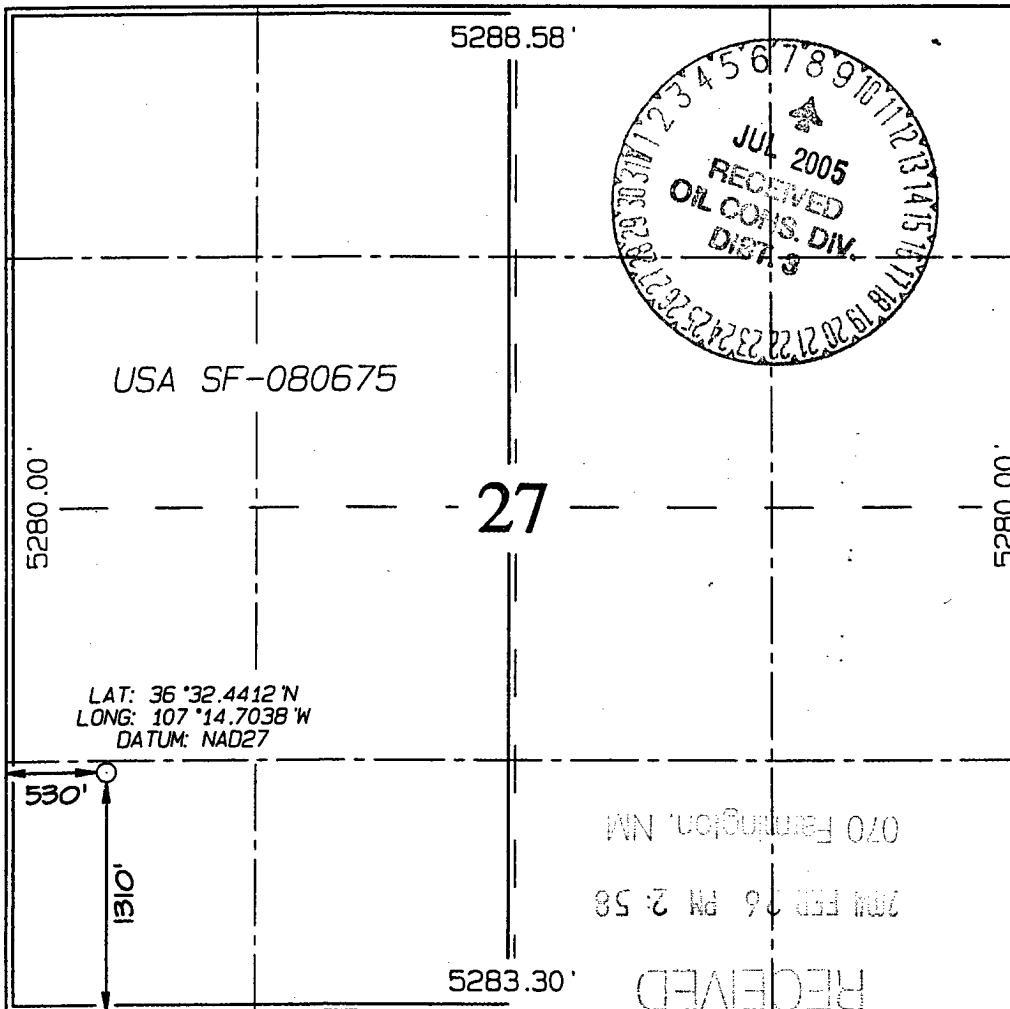
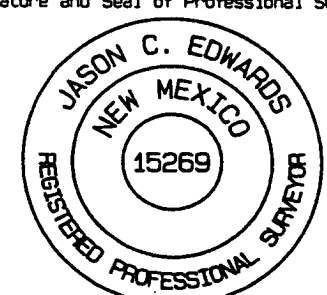
UL or lot no. M	Section 27	Township 27N	Range 4W	Lot Idn	Feet from the 1310	North/South line SOUTH	Feet from the 530	East/West line WEST	County RIO ARriba
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## 11 Bottom Hole Location If Different From Surface

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 MV-W/320 DK-W/320					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

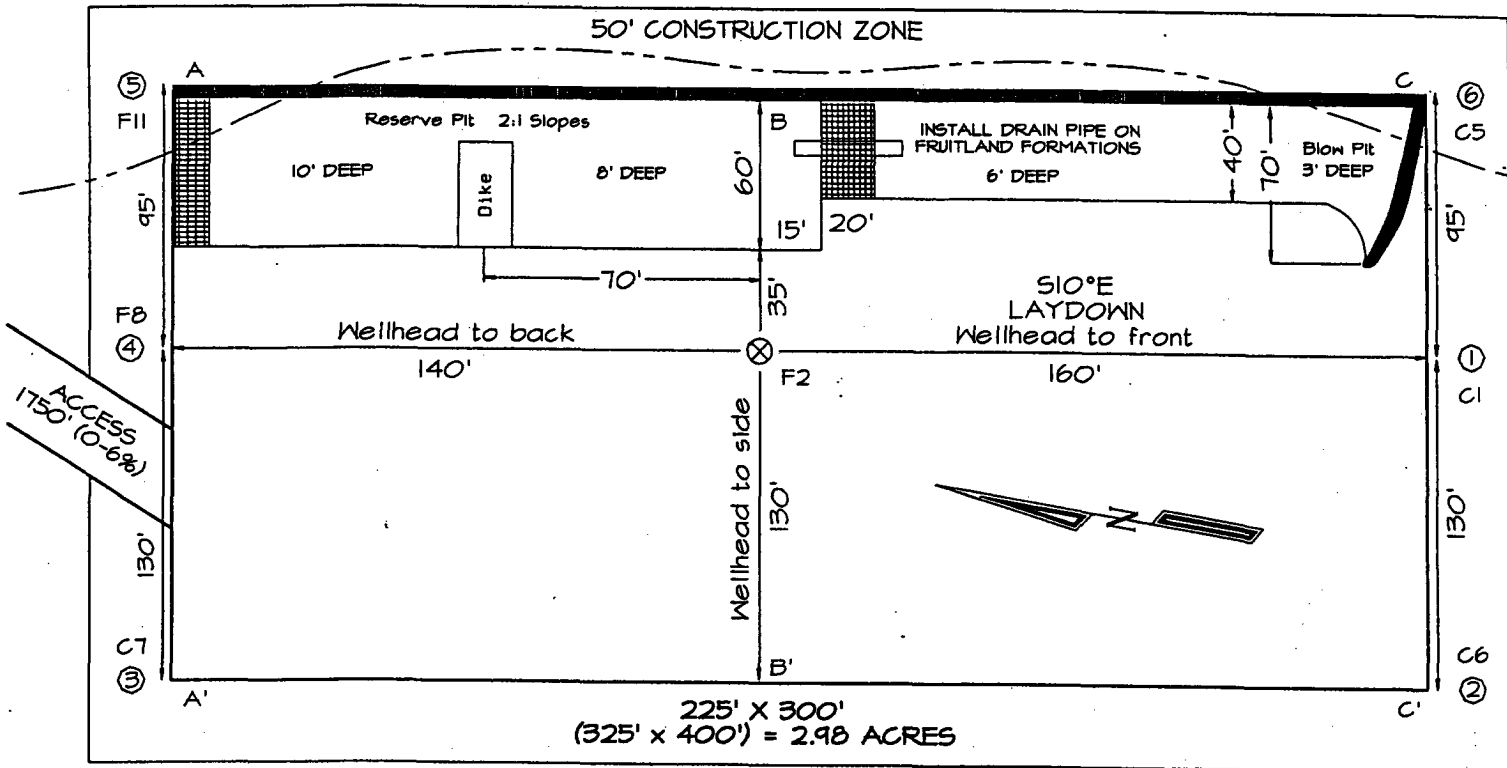
16

	<b>17 OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature <u>Joni Clark</u> Printed Name <u>Joni Clark</u> Title <u>Regulatory Specialist</u> Date <u>2-16-04</u>
	<b>18 SURVEYOR CERTIFICATION</b> 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: <u>OCTOBER 3, 2003</u> Signature and Seal of Professional Surveyor   <u>JASON C. EDWARDS</u> Certificate Number <u>15269</u>

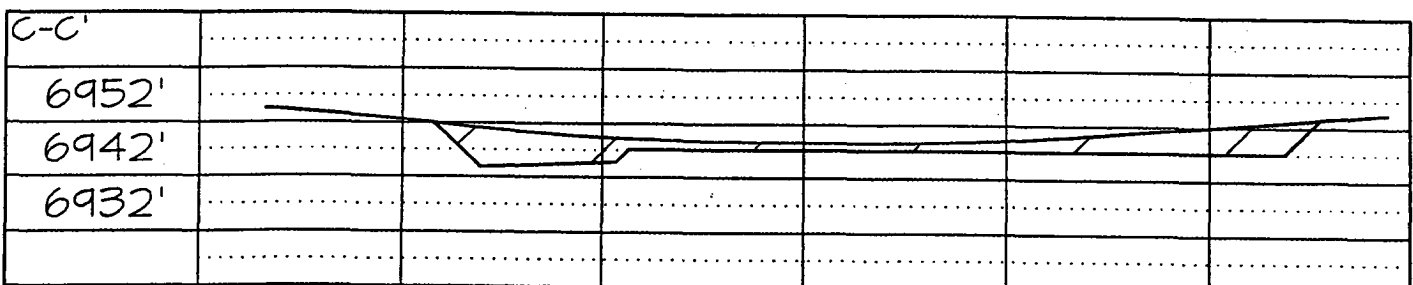
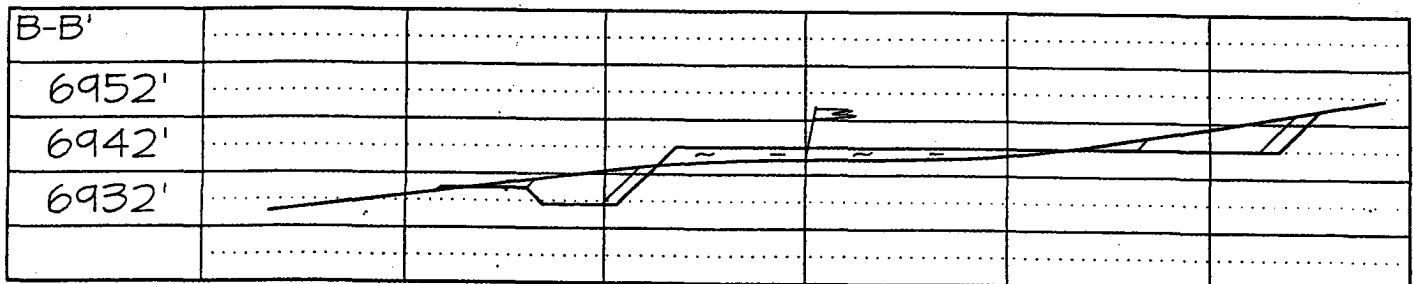
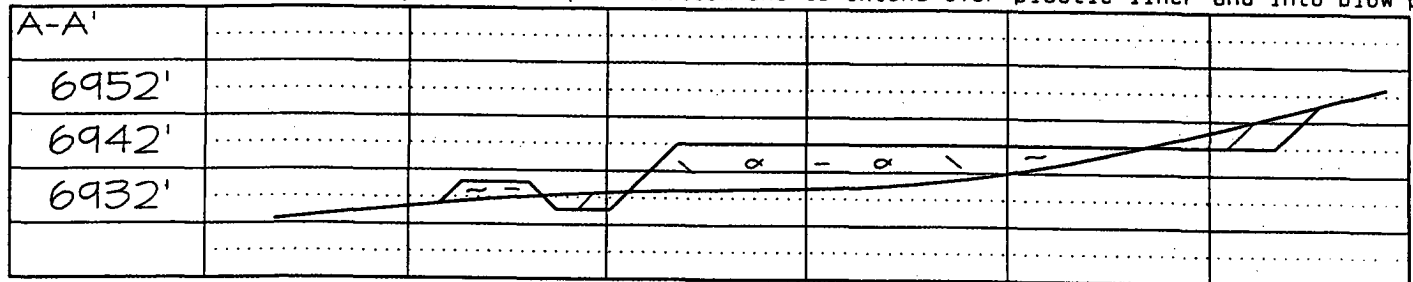
PLAT 7

SAN JUAN 27-4 UNIT #133M, 1310' FSL & 530' FWL  
SECTION 27, T27N, R4W, NMPM, RIO ARriba COUNTY, NM  
GROUND ELEVATION: 6940' DATE: OCTOBER 3, 2003

LATITUDE: 36°32'26"  
LONGITUDE: 107°14'42"  
DATUM: NAD1927



Reserve Pit Dike: to be 8' above Deep side (overflow - 3' wide and 1' above shallow side).  
Blow Pit: overflow pipe halfway between top and bottom and to extend over plastic liner and into blow pit.



Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction

## OPERATIONS PLAN

**Well Name:** San Juan 27-4 Unit #133M  
**Location:** 1310' FSL, 530' FWL, Sec 27, T-27-N, R-4-W  
Rio Arriba County, NM  
Latitude 36° 32.44'N Longitude 107° 14.70'W

**Formation:** Blanco Mesaverde/Basin Dakota

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	3227'	
Ojo Alamo	3227'	3447'	aquifer
Kirtland	3447'	3617'	gas
Fruitland	3617'	3792'	
Pictured Cliffs	3792'	3917'	gas
Lewis	3917'	4289'	gas
Intermediate TD	4017'		
Huerfanito Bentonite	4289'	4749'	gas
Chacra	4749'	5367'	gas
Upper Cliff House	5367'	5570'	
Massive Cliff House	5570'	5619'	
Menefee	5619'	5954'	gas
Point Lookout	5954'	6143'	gas
Mancos	6143'	7087'	gas
Gallup	7087'	7904'	gas
Greenhorn	7904'	7966'	gas
Graneros	7966'	7993'	gas
Dakota	7993'	8125'	gas
Upper Cubero	8125'	8166'	gas
Lower Cubero	8166'	8187'	gas
Oak Canyon	8187'	8232'	
Encinal	8232'		
TD	8230'		

### Logging Program:

Mud Logs/Coring/DST -  
Mud logs - none  
Coring - none  
DST - none  
Open hole - none  
Cased hole - Gamma Ray, CCL, CBL - surface to TD

### Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 120'	Spud MUD/Air/Air Mist	8.4-9.0	40-50	no control
120- 4017'	LSND	8.4-9.0	30-60	no control
4017- 8230'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

### Casing Program (as listed, the equivalent, or better):

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - <del>120'</del> 200' (BLM)	9 5/8"	32.3#	H-40
8 3/4"	0' - 4000'	7"	20.0#	J-55
8 3/4"	4000' - 4017'	7"	23.0#	N-80
6 1/4"	0' - 7800'	4 1/2"	10.5#	J-55
6 1/4"	7800' - 8230'	4 1/2"	11.6#	N-80

**Tubing Program:** 0' - 8230' 2 3/8" 4.7# J-55

Cementing:

9 5/8" surface casing -

**Pre-Set Drilled** - Cement with 23 sx Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (38 cu ft of slurry, bring cement to surface) Wait on cement for 24 hours for pre-set holes before pressure testing or drilling out from under surface.

**Conventionally Drilled** - Cement with 88 sx Type III cement with 0.25 pps Celloflake, 2% CaCl. (113 cu ft of slurry, 200% excess, bring cement to surface) Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface. Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60 degrees F. prior to nipple up of BOPE. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface. Test casing to 600 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar set 300' above the top of the Fruitland. First stage: Lead with 16 sacks Premium Lite cmt w/3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% sodium metascilicate, 0.4% fluid loss. Tail w/90 Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss. Second stage: Lead with 348 sacks with Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (900 cu ft-50% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo @ 3447'. Two turbolating centralizers at the base of the Ojo Alamo 3447'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

#### 4 1/2" Production Casing -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Cement with 290 sacks Premium Lite HS w/ 0.25 pps Celloflake, 0.3% CD-32, 6.25 pps LCM-1 and 1% FL-52. (573 cu.ft.-30% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

Cement float collar stacked on top of float shoe.

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

#### Special Drilling Operations (Air/Mist Drilling):

The following equipment will be operational while air/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

#### Additional Information:

- The Mesa Verde and Dakota formations will be completed and commingled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
Dakota	2500 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The west half of Section 27 is dedicated to the Mesa Verde and Dakota.
- This gas is dedicated.

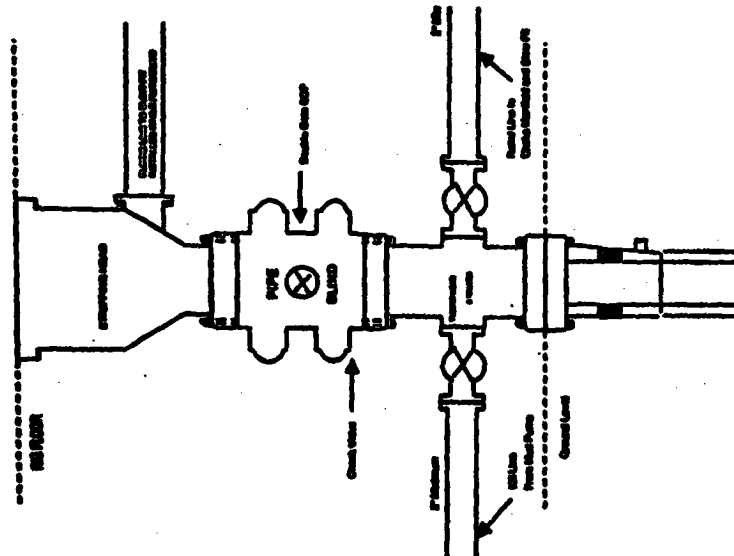
Sean Corrigan  
Drilling Engineer

February 25, 2004  
Date

# BURLINGTON RESOURCES

## Completion/Workover Rig BOP Configuration 2,000 psi System

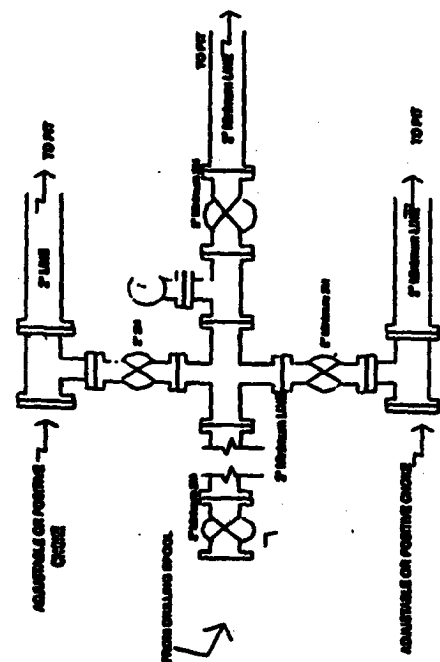
**Drilling Rig  
2000 psi System**



Minimum BOP Installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A clipping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 600 psi clipping head.

**Figure #2**

**Drilling Rig  
Choke Manifold Configuration  
2000 psi System**

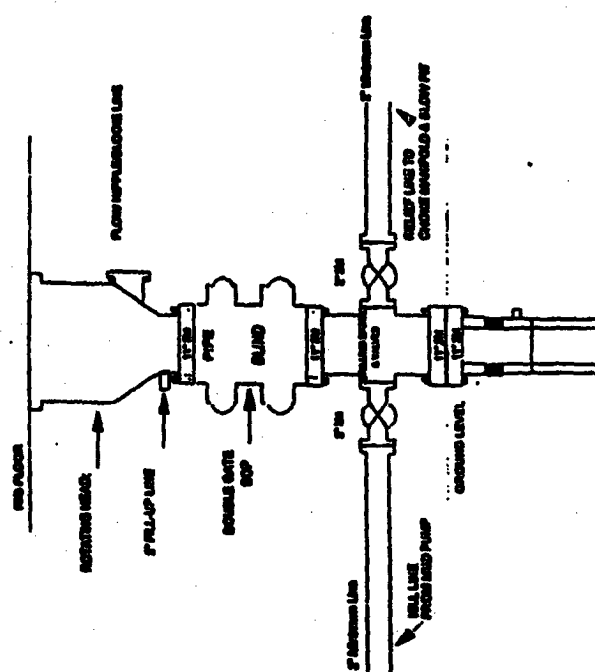


Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

**Figure #3**

# Burlington Resources

**Drilling Rig  
2000 psi System**



BOP Installation from Surface Casing Point to Total Depth. 7-1/16" Bore 10" Minimum, 2000 psi working pressure double gate BOP to be equipped with blind and pipe rams. A 600 psi clamping head on top of ram preventer. All BOP equipment is 2,000 psi working pressure.

**Figure #1**