

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number NMSF078358 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>BURLINGTON</b> RESOURCES Oil & Gas Company	7. Unit Agreement Name Huerfanito Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499  (505) 326-9700	8. Farm or Lease Name	
	9. Well Number #175	
4. Location of Well Unit O (SWSE), 740' FSL & 1640' FEL,  Latitude 36° 32.4536'N Longitude 107° 45.2430'W	10. Field, Pool, Wildcat Basin Fruitland Coal/ <del>Aspec</del> PC WC Fruitland Sands 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 26, T27N, R9W API # 30-045- 33063	
14. Distance in Miles from Nearest Town 5.4 miles	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 740'		
16. Acres in Lease	17. Acres Assigned to Well FC - 320 E/2; PC & FS - 160 SE/4	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 1050' - Huerfanito Unit #79M		
19. Proposed Depth 2319'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6247' GL	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		

24. Authorized by: Patsy Clugst Date 5/3/05  
Sr. Regulatory Specialist

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY [Signature] TITLE AFM DATE 5-29-05

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.

This well is NOT in the HPA area.

NMOC

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

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

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-33063	<sup>2</sup> Pool Code 71629/71280/97453	<sup>3</sup> Pool Name Basin Fruitland Coal / Aztec PC / WC #27N19W26E Fruitland Sand
<sup>4</sup> Property Code 7138	<sup>5</sup> Property Name HUERFANITO UNIT	<sup>6</sup> Well Number 175
<sup>7</sup> OGSD No. 14538	<sup>8</sup> Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP	<sup>9</sup> Elevation 6247'

<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
0	26	27-N	9-W		740'	SOUTH	1640'	EAST	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 FC-320 E/2 FS - 160 SE/4 PC - 160 SE/4			<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

<p>16</p> <p>26</p> <p>USA SF-078356 USA SF-078353</p> <p>LAT: 36°32.4536' N. LONG: 107°45.2430' W. NAD 1987</p> <p>1640'</p> <p>740'</p> <p>N 89-30 W 6248.98'</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>Patsy Clugston</i></p> <p>Signature Patsy Clugston Printed Name Sr. Regulatory Specialist Title 3-29-05 Date</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>Date of Survey <i>05</i></p> <p>Signature <i>Carl Russell</i></p> <p>NEW MEXICO 15703 LICENSED PROFESSIONAL SURVEYOR</p> <p>Certificate Number 15703</p>					

May 27, 2004

## 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

Energy, Minerals and Natural Resources

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-045-

5. Indicate Type of Lease

STATE ☐FEE ☐

6. State Oil &amp; Gas Lease No.

NMSF-078358

7. Lease Name or Unit Agreement Name

Huerfanito Unit

8. Well Number

#175

9. OGRID Number

14538

10. Pool name or Wildcat

Basin FC/ Aztec PC / WC Fruitland Sands

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

BURLINGTON RESOURCES OIL &amp; GAS COMPANY LP

3. Address of Operator

3401 E. 30TH STREET, FARMINGTON, NM 87402

4. Well Location

Unit Letter O : 740' feet from the South line and 1640' feet from the East lineSection 26 Township 27N Range 9W NMPM County San Juan

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

6247' GL

Pit or Below-grade Tank Application

or Closure ☐

Pit type

new drill

Depth to Groundwater

&gt;100'

Distance from nearest fresh water well

&gt;1000'

Distance from nearest surface water

&gt;1000'

Pit Liner Thickness:

n/a

mil

Below-Grade Tank:

Volume

bbls;

Construction Material

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

## NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐TEMPORARILY ABANDON ☐PULL OR ALTER CASING ☐PLUG AND ABANDON ☐CHANGE PLANS ☐MULTIPLE COMPL ☐

## SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐COMMENCE DRILLING OPNS. ☐CASING/CEMENT JOB ☐ALTERING CASING ☐P AND A ☐

OTHER:

New Drill Pit ☒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.

New Drill, Unlined:

Burlington Resources proposes to construct a new drilling pit and an associated vent/flare pit. Based on Burlington's interpretation of the Ecosphere's risk ranking criteria, the new drilling pit and vent/flare pit will be an unlined pit as detailed in Burlington's Revised Drilling / Workover Pit Construction / Operation Procedures dated November 11, 2004 on file at the NMOCD office. A portion of the vent/flare pit will be designed to manage fluids, and that portion will be unlined, as per the risk ranking criteria. Burlington Resources anticipates closing these pits according to the Drilling / Workover Pit Closure Procedure dated August 2, 2004 on file at the NMOCD office.

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 \_\_\_\_\_ TITLE Sr. Regulatory Specialist DATE 4/1/2005

Type or print name

Patsy Clugston

E-mail address:

pclugston@br-inc.com

Telephone No.

505-326-9518

For State Use Only

APPROVED BY

TITLE

DEPUTY OIL &amp; GAS INSPECTOR, DIST. 24

DATE

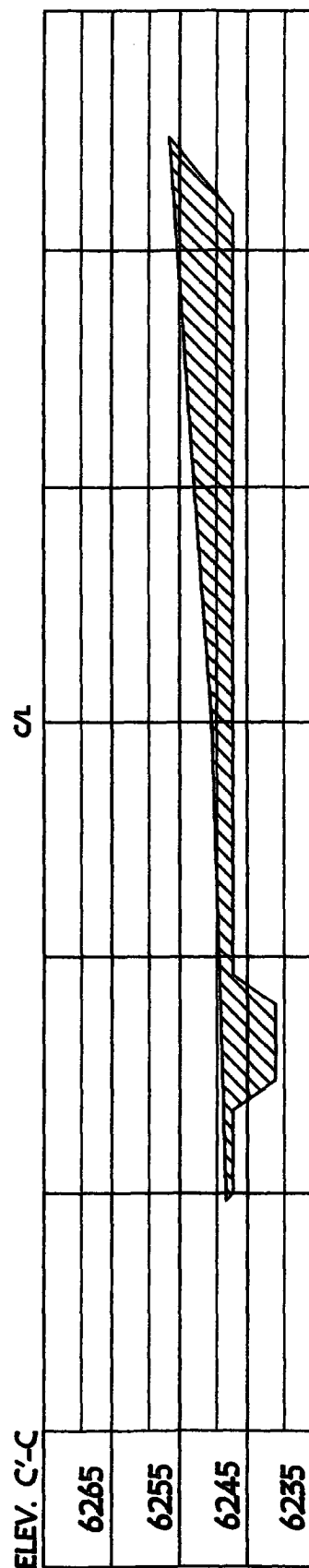
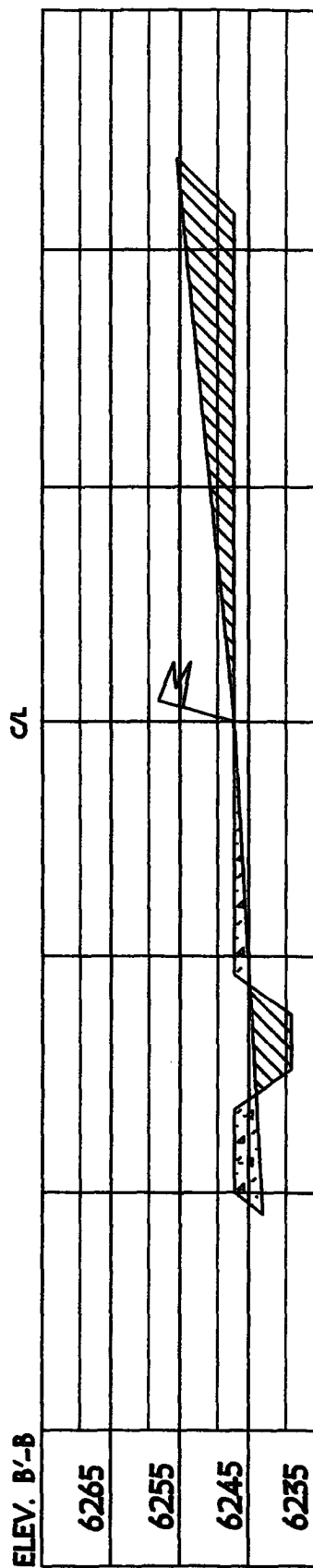
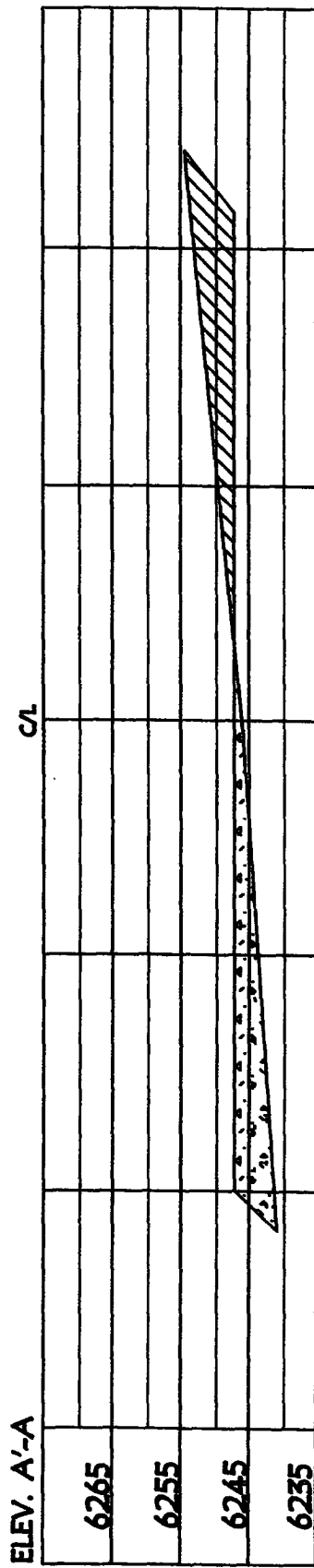
MAY 27 2005

Conditions of Approval (if any)

**HVERFANITO UNIT 175, 740' FSL & 1640' FEL**

SECTION 26, T-27-N, R-9-W, NMPM, SAN JUAN COUNTY, NM

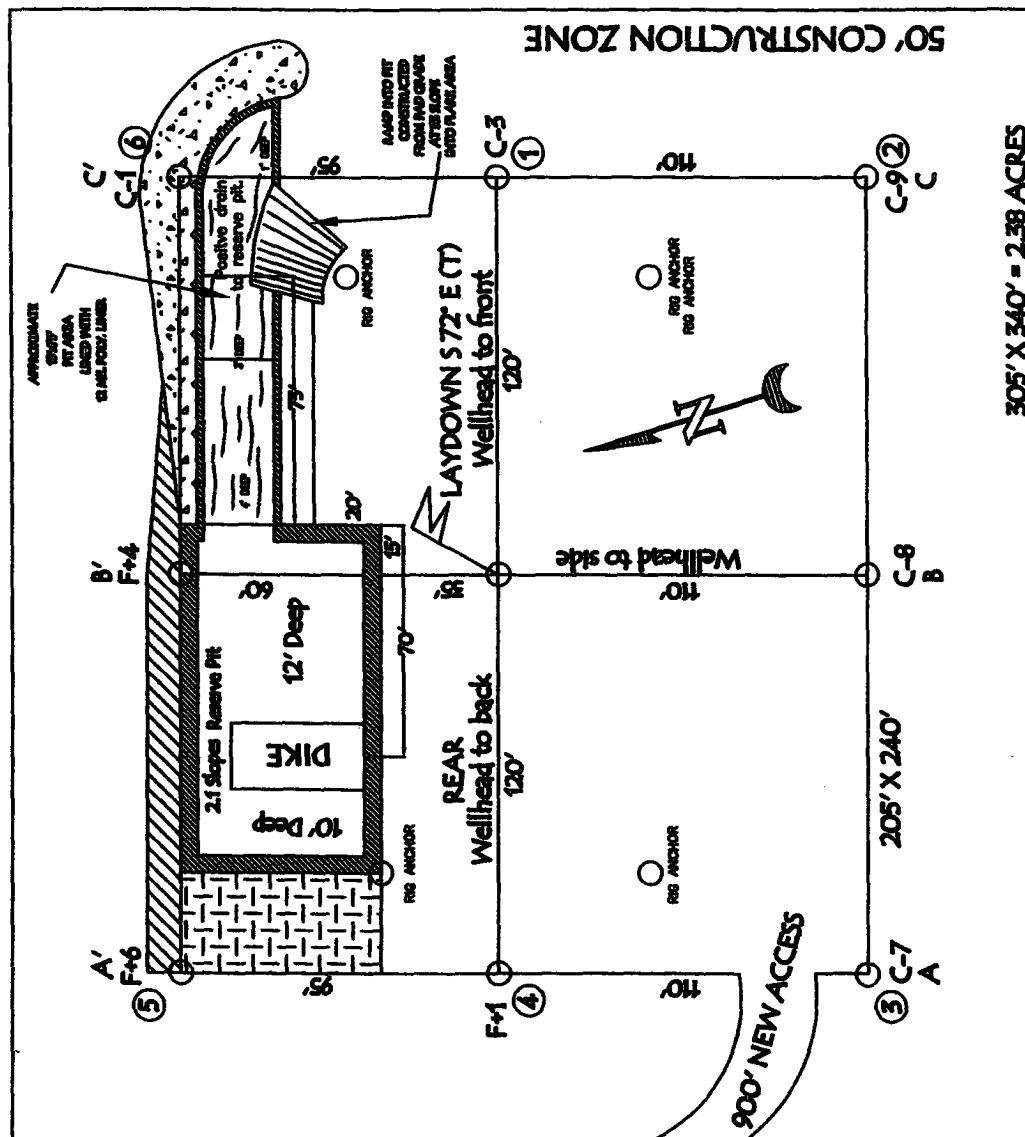
GROUND ELEVATION: 6247', DATE: MARCH 18, 2005



**NOTE: VECTOR SURVEYS IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. 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.**

**RESERVE PIT DIKE TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).**

LATITUDE: 36° 32.4536' LONGITUDE: 107° 45.2430' NAD27



OPERATIONS PLAN

**Well Name:** Huerfanito Unit #175  
**Location:** Unit O, (SWSE) 740' FSL & 1640' FEL, Section 26, T27N, R9W  
 San Juan County, New Mexico  
 Latitude 36° 32.4536'N; Longitude 107° 45.2430'W  
**Formation:** Basin Fruitland Coal / Aztec Pictured Cliffs / WC Fruitland Sands  
**Elevation:** 6247' GR

Formation:	Top	Bottom	Contents
Surface	San Jose		
Ojo Alamo	1309	1364	aquifer
Kirtland	1364	1939'	gas
T/Fruitland	1939'		gas
Pictured Cliffs	2119'		
<b>Total Depth</b>	<b>2319'</b>		

**Note:** The Total Depth for this well is into the Pictured Cliffs interval, but currently only have plans to complete the Fruitland Coal interval. We could in the near future perforate/stimulate the Pictured Cliffs interval, but only would once Regulatory approval was asked for and received.

**Logging Program:** None

**Mud Program:**

Interval	Type	Weight	Vis. Fluid Loss
0- 120'	Spud/air/air-mist	8.4-8.9	40-50 no control
120-2319'	Non-dispersed	8.4-9.5	30-60 no control

**Casing Program:**

Hole Size	Depth Interval	Csg. Size	Wt.	Grade
8 3/4"	0 - 120'	7"	20.0#	J-55
6 1/4"	0 - 2319'	4 1/2"	10.5#	J/K-55

**Tubing Program:**

0 - 2319'	2 3/8"	4.7#	J-55
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**Float Equipment:** 7" surface casing - guide shoe. Centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - float shoe and float collar on bottom. Centralizers run every third joint above shoe to the base of the Ojo Alamo @ 1364'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1364'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

**Wellhead Equipment:** 7" x 4 1/2" x 2 3/8" x 11" 2000 psi xmas tree assembly.

April 2, 2005

**Cementing:**

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

7" surface casing - Cement with 42 sx Type III cement with 0.25 pps Celloflake, 3% CaCl. (54 cu ft of slurry @ 1.28 yield). 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.  
**WOC until cement establishes 250 psi compressive strength prior to NU of BOPE.**

4 1/2" production casing - Cement with 110 sx (236 cu ft of slurry @ 2.13 yield) Premium Lite with 3% calcium chloride, 5 pps LCM-1, and 1/4#/sack celloflake, 0.4% FL-52, & 0.4% SMS. Tail with 90 sacks (124 cu ft of slurry @ 1.38 yield) Type III cmt with 1% calcium chloride, 1/4#/sack Celloflake and 0.2% FL-52. Total of 360 cf - 50% excess to circulate to surface.

**BOP and tests:**

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1 and #2). Prior to drilling out surface casing, test ~~rams~~ <sup>**rams**</sup> to 600 psi/30 min.  
**BOPE**

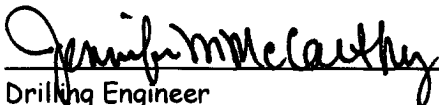
Completion - 6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 1500 psi/30 min.

From surface to TD - choke manifold (Reference Figure #3).

Pipe rams will be actuated at least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

**Additional information:**

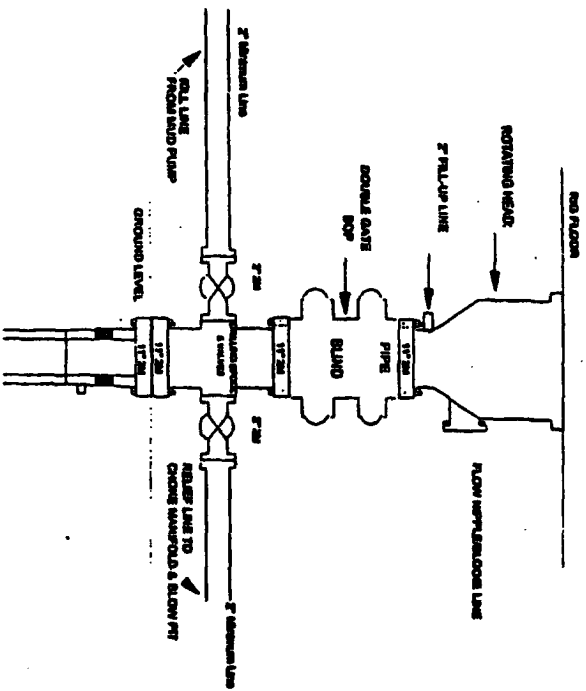
- The Fruitland Coal formation will be completed.
- Anticipated pore pressure for the Fruitland is between 600 - 700 psi.
- This gas is dedicated.
- New casing will be utilized.
- Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.
- The W/2 of the section is dedicated to the Fruitland Coal, and the SE/4 of the section is dedicated to the Fruitland Sands and Pictured Cliffs

  
Drilling Engineer

4-19-05  
Date

# Burlington Resources

## Drilling Rig 2000 psi System



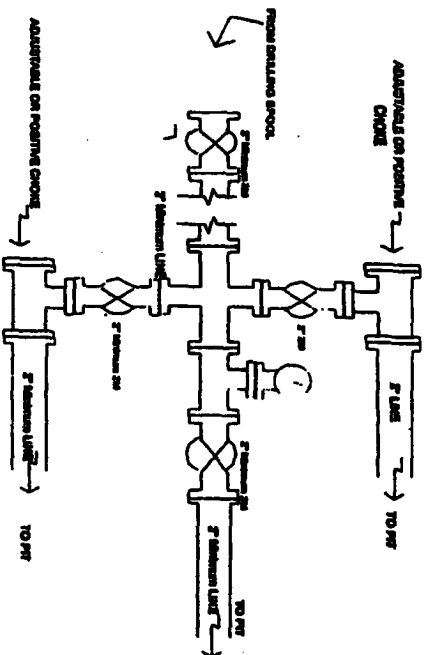
BOP installation from Surface Casing Point to Total Depth, 17\"/>

Figure #1

4-20-01

# BURLINGTON RESOURCES

## Drilling Rig Choke Manifold Configuration 2000 psi System



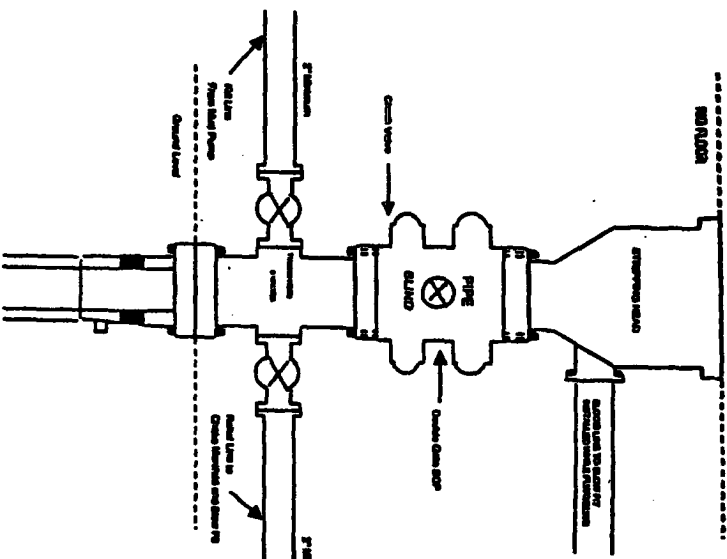
Choke manifold installation from Surface Casing Point to Total Depth, 2,000psi working pressure equipment with two chokes.

Figure #3

4-20-01

# BURLINGTON RESOURCES

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



Minimum BOP installation for all Completion/Workover Operations, 7-1/16\"/>

Figure #2