UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2006 MAR 13 PM 3 27

RECEIVED
070 FARMINGTON NM

1a. Type of Work: DRILL

5. Lease Number: SF-080669
Unit Reporting Number: NMNM-078408B DK NMNM-078408A MV

1b. Type of Well: GAS

6. If Indian, All. or Tribe

2. Operator: BURLINGTON RESOURCES Oil & Gas Company LP

7. Unit Agreement Name: San Juan 27-4 Unit

APR 2006
OIL CONS. DIV.
DIST. 3

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499

(505) 326-9700

8. Farm or Lease Name

9. Well Number: #47P

4. Location of Well
Unit H (SENE), 2290' FNL & 170' FEL,

Lat. 36*33.5767'N
Long. 107*15.9012'W

10. Field, Pool, Wildcat
Blanco MV/ Basin DK

11. Sec., Twn, Rge, Mer. (NMPM)
H Sec. 20, T27N, R4W

API # 30-039- 29838

14. Distance in Miles from Nearest Town
Gobernador 17 miles

12. County: Rio Arriba

13. State: NM

15. Distance from Proposed Location to Nearest Property or Lease Line
170'

16. Acres in Lease

17. Acres Assigned to Well
DK 320 N/2, MV 320 E/2

18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease
1540' DK

19. Proposed Depth
8083'

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6779' GL

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Patricia Thompson
Regulatory Compliance Associate III

3/13/06
Date

PERMIT NO.

APPROVAL DATE

APPROVED BY D. Mankiewicz TITLE AFM DATE 3/30/06

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.

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

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

NMOCD

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

District II
PO Drawer DD, 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

2006 MAR 13 PM 3 27

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

| ¹API Number | ²Pool Code | ³Pool Name |
|---|---|---|
| 30-039-29838 | 72319/ 71599 | Blanco Mesaverde/Basin Dakota |

| ⁴Property Code | ⁵Property Name | ⁶Well Number |
|---|---|---|
| 7452 | SAN JUAN 27-4 UNIT | 47P |

| ⁷OGRID No. | ⁸Operator Name | ⁹Elevation |
|---|---|---|
| 14538 | BURLINGTON RESOURCES OIL & GAS COMPANY, LP | 6772' |

## ¹⁰ Surface Location

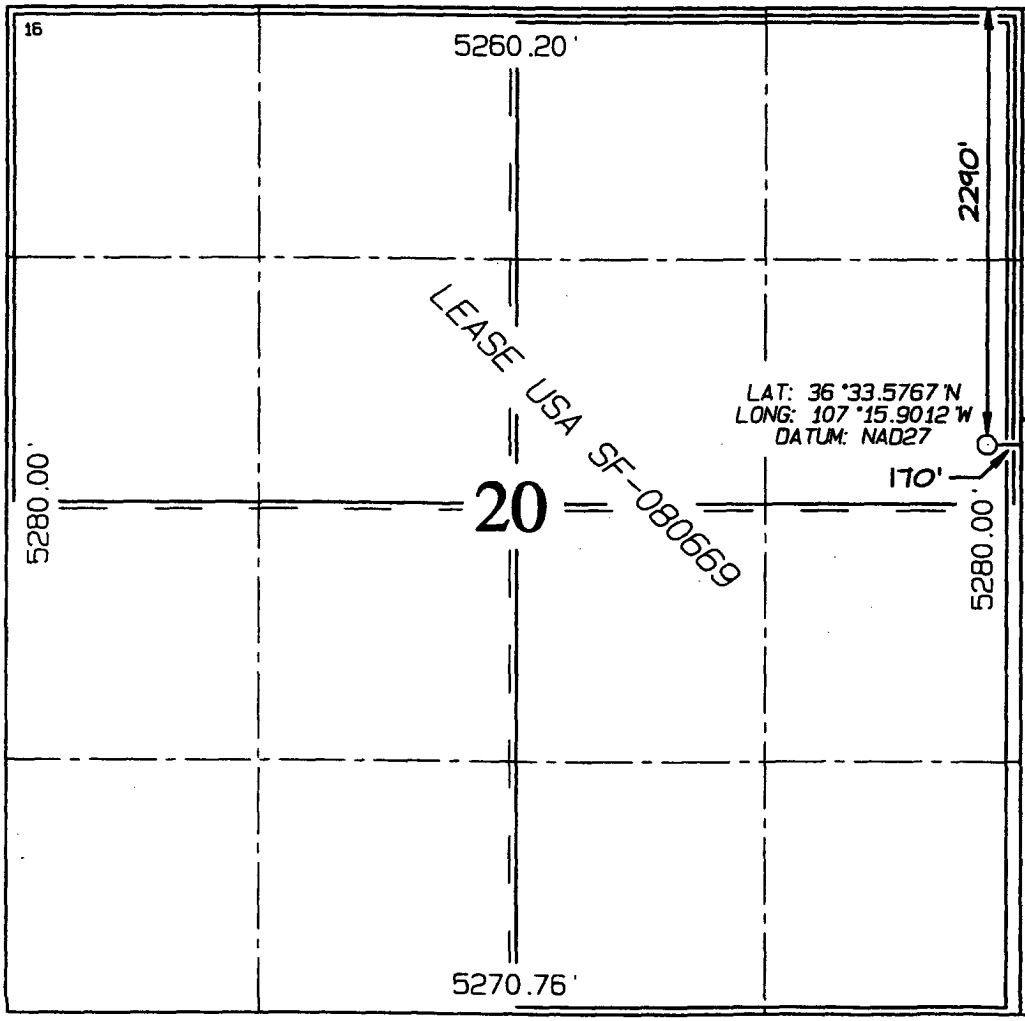
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| H | 20 | 27N | 4W | | 2290 | NORTH | 170 | EAST | RIO ARRIBA |

## 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 | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ Order No. |
|---|---|---|---|
| DK N/2 320 ac MV E/2 320 ac. | | | |

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




## ¹⁷ OPERATOR CERTIFICATION

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

Signature

Joni Clark

Printed Name

Sr. Regulatory Specialist

Title

11-8-05

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: OCTOBER 28, 2005

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS

Certificate Number 15269

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

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

Form C-103
May 27, 2004

WELL API NO. 30-039-24838

5. Indicate Type of Lease STATE [ ] FEE [X]

6. State Oil & Gas Lease No. Federal Lease - SF-080669

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.)

7. Lease Name or Unit Agreement Name: San Juan 27-4 Unit

1. Type of Well: Oil Well [ ] Gas Well [X] Other

8. Well Number: #47P

2. Name of Operator: BURLINGTON RESOURCES OIL & GAS COMPANY LP

9. OGRID Number: 14538

3. Address of Operator: 3401 E. 30TH STREET, FARMINGTON, NM 87402

10. Pool name or Wildcat: Blanco MV/ Basin DK

4. Well Location
Unit Letter H : 2290' feet from the North line and 170' feet from the East line
Section 20 Township 27N Range 4W NMPM County Rio Arriba

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 6775' GL

Pit or Below-grade Tank Application [ ] or Closure [ ]

Pit type New Drill Depth to Groundwater <50 Distance from nearest fresh water well >1000' Distance from nearest surface water <1000

Pit Liner Thickness: 12 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: | | | | SUBSEQUENT REPORT OF: | | | |
|---|---|---|---|---|---|---|---|
| PERFORM REMEDIAL WORK | [ ] | PLUG AND ABANDON | [ ] | REMEDIAL WORK | [ ] | ALTERING CASING | [ ] |
| TEMPORARILY ABANDON | [ ] | CHANGE PLANS | [ ] | COMMENCE DRILLING OPNS. | [ ] | P AND A | [ ] |
| PULL OR ALTER CASING | [ ] | MULTIPLE COMPL | [ ] | CASING/CEMENT JOB | [ ] | | |
| OTHER: | | New Drill | [X] | 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, Lined:

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 will be a lined 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 lined 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 [X] or an (attached) alternative OCD-approved plan [ ].**

SIGNATURE _____ TITLE Regulatory Associate II DATE 1/25/2006

Type or print name Philana Thompson E-mail address: pthompson@br-inc.com Telephone No. 505-326-9530

**For State Use Only**

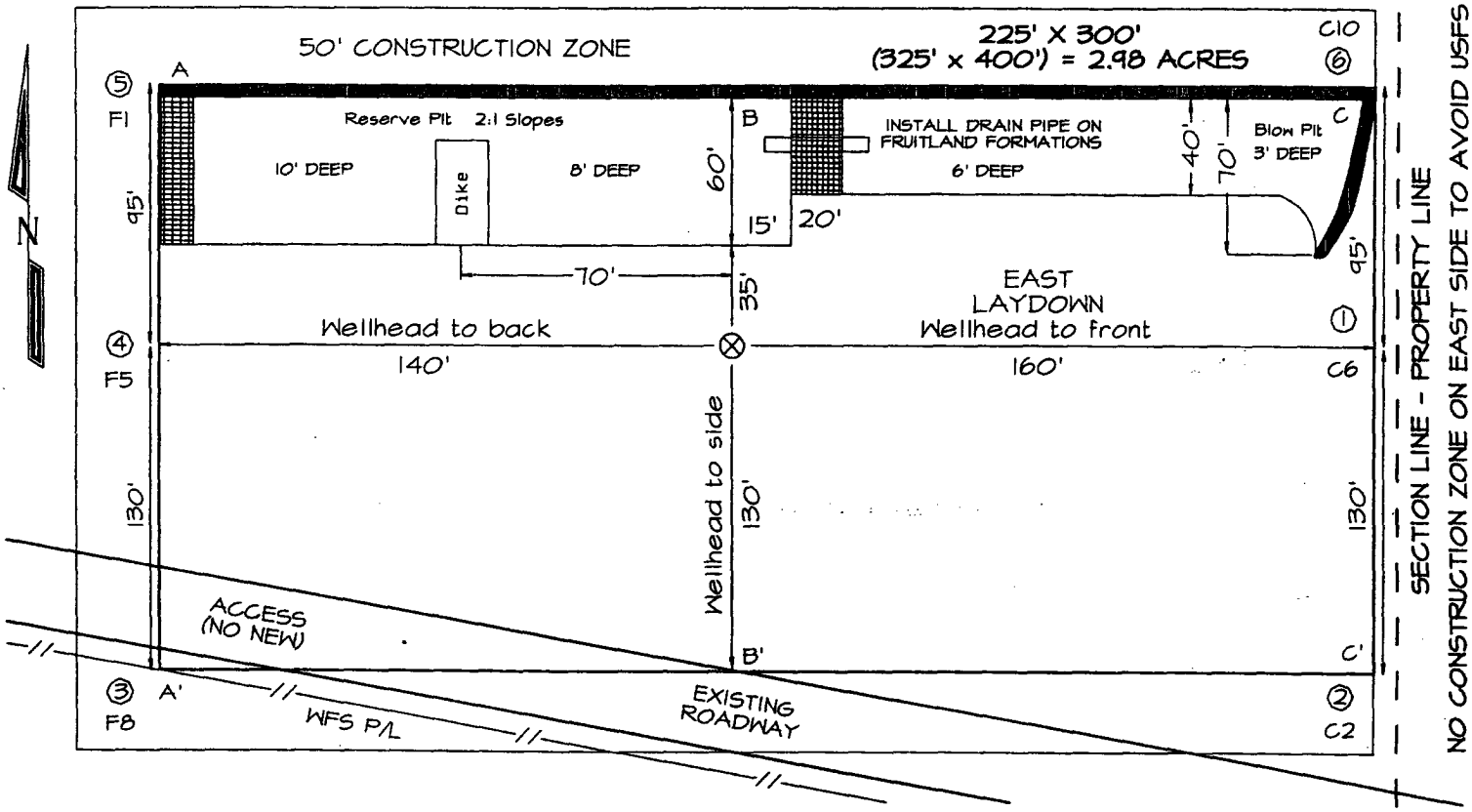
APPPROVED BY _____ TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE APR 03 2006

Conditions of Approval (if any):

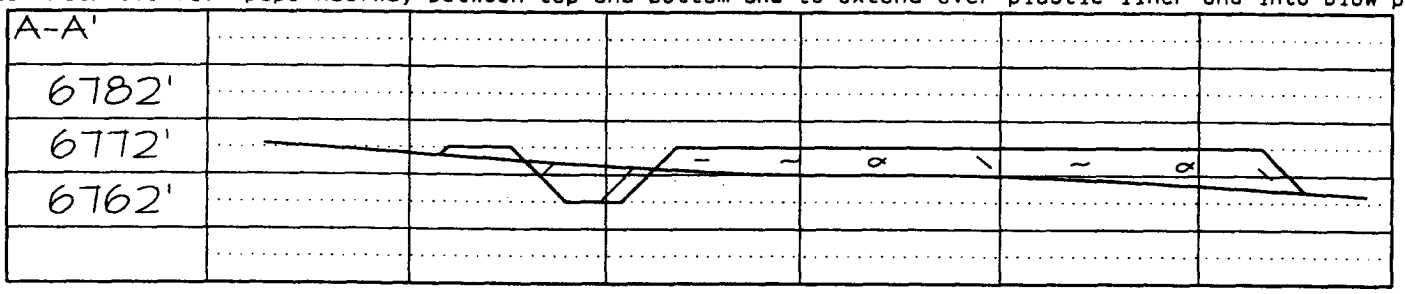
PLAT #1

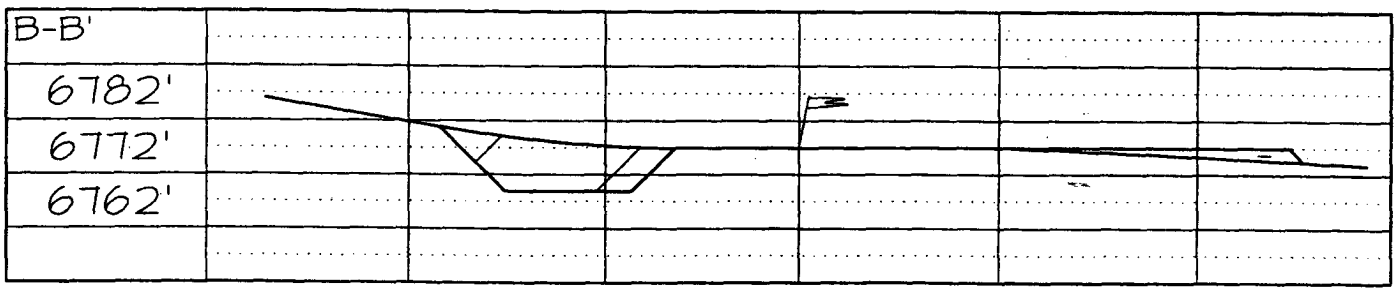
# BURLINGTON RESOURCES OIL & GAS COMPANY, LP
# SAN JUAN 27-4 UNIT #47P, 2290' FNL & 170' FEL
# SECTION 20, T27N, R4W, NMPM, RIO ARRIBA COUNTY, NM
# GROUND ELEVATION: 6772' DATE: OCTOBER 28, 2005

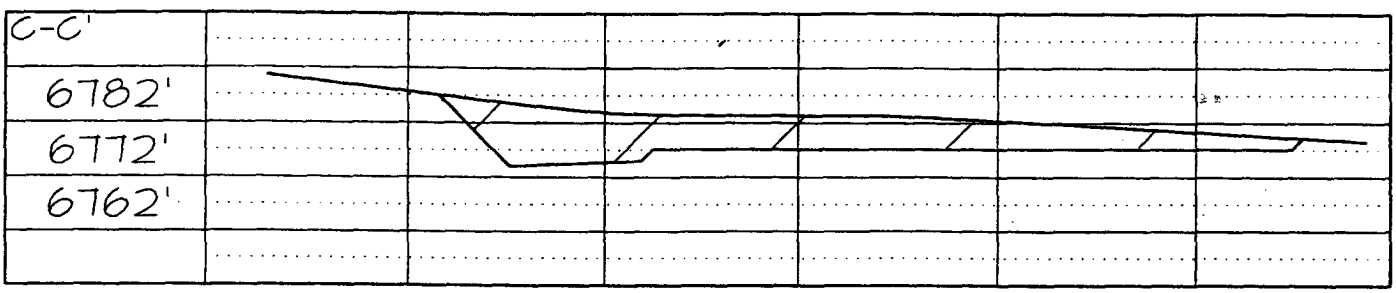
**LATITUDE: 36°33'35"**
**LONGITUDE: 107°15'54"**
DATUM: NAD1927




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 47P
***Location:*** 2290' FNL & 170' FEL, Section 20 T27N R04W
Rio Arriba County, New Mexico

***Formation:*** Blanco Mesaverde/Basin Dakota
***Elevation:*** 6772' GL

| ***Formation Tops:*** | ***Top*** | ***Bottom*** | ***Contents*** |
|---|---|---|---|
| Surface | San Jose | 3121' | |
| Ojo Alamo | 3121' | 3219' | aquifer |
| Kirtland | 3219' | 3444' | gas |
| Fruitland Coal | 3444' | 3669' | gas |
| Pictured Cliffs | 3669' | 3784' | gas |
| Lewis | 3784' | 4154' | |
| Huerfanito Bentonite | 4154' | | |
| Chacra | 4599' | 5429' | gas |
| Massive Cliff House | 5429' | 5474' | gas |
| Menefee | 5474' | 5804' | gas |
| Massive Point Lookout | 5804' | 6319' | gas |
| Mancos Shale | 6319' | 6959' | |
| Upper Gallup | 6959' | 7754' | gas |
| Greenhorn | 7754' | 7811' | gas |
| Graneros | 7811' | 7841' | gas |
| Two Wells | 7841' | 7972' | gas |
| Upper Cubero | 7972' | 8016' | gas |
| Lower Cubero | 8016' | 8068' | gas |
| Oak Canyon | 8068' | 8090' | gas |
| Encinal | 8090' | 8083' | gas |
| Total Depth: | 8083' | | gas |

***Logging Program:***

Mud Logs/Coring/DST

Mud logs - from 7858' (about 200' above Greenhorn top) to TD
Coring - none
DST - none
Open hole - none
Cased hole - Gamma Ray, CBL - surface to TD

***Mud Program:***

| Interval | Type | Weight | Vis. | Fluid Loss |
|---|---|---|---|---|
| 0 - 200' | Spud MUD/Air/Air Mist | 8.4 - 9.0 | 40 - 50 | no control |
| 200- 3884' | LSND | 8.4 - 9.0 | 30 - 60 | no control |
| 3884 - 8083' | Air/Air Mist/Nitrogen | n/a | n/a | n/a |

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

| Hole Size | Depth Interval | Csg.Size | Wt. | Grade |
|---|---|---|---|---|
| 12 1/4" | 0' - 200' | 9 5/8" | 32.3# | H-40 |
| 8 3/4" | 0' - 3884' | 7" | 20/23# | J-55 |
| 6 1/4" | 0' - 8083' | 4 1/2" | 10.5# | J-55 |

***Tubing Program:***

| Depth Interval | Csg.Size | Wt. | Grade |
|---|---|---|---|
| 0' - 8083' | 2 3/8" | 4.7# | J-55 |

***BOP Specifications, Wellhead and Tests:***

Surface to Intermediate TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, ~~rams~~ BOPE and casing will be tested to 600 psi for 30 minutes.

Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, ~~rams~~ BOPE and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

***Completion Operations -***

7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

***Wellhead -***

9 5/8" x 7" x 4 ½" x 2 3/8" x 2000 psi tree assembly.

***General -***

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drill crew.
- All BOP tests & drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

***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~~ 147 sx Type III cement with 0.25 pps Celloflake, 2% CaCl. ~~142~~ 236 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.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -

Lead with 350 sacks Premium Lite cement with 3% calcium chloride, 0.25 pps Celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. Tail w/90 sacks Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss (124 cu ft 50% excess to circulate to surface). WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage -

Stage collar set 300' above the top of the Fruitland. First stage: Lead w/20 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss. Tail w/90 Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss. Second stage: 330 sacks Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (703 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 @ 3219'. Two turbolating centralizers at the base of the Ojo Alamo @ 3219'. 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 -

Pump 275 sxs Premium Lite HS FM w/0.25 pps celloflake, 0.3% CD-32, 6.25 pps LCM-1, 1% fluid loss, 6% gel, 7 pps CSE (544 cu.ft., 30% excess to achieve 100' overlap in 4-1/2" x 7" annulus). WOC a minimum of 18 hrs prior to completing.

***Cementing:*** ***Continued***

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 | 2000 psi |

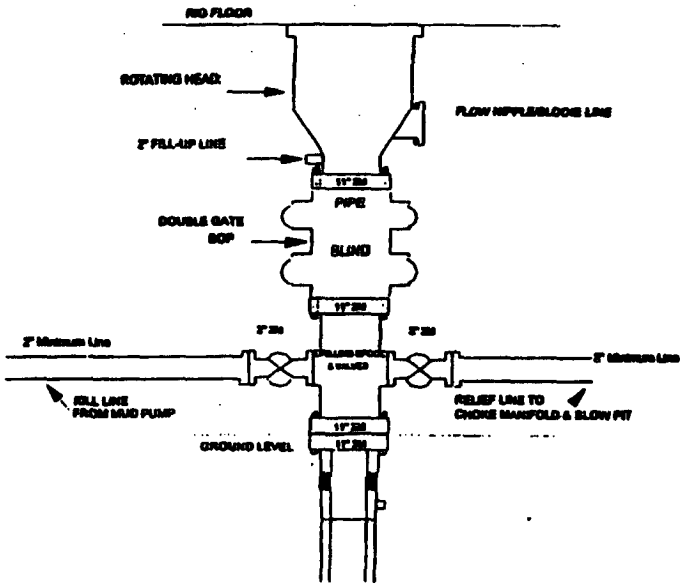
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The North half of Section 20 is dedicated to the Dakota formation and the East half of Section 20 is dedicated to the Mesa Verde.
- This gas is dedicated.

Drilling Engineer

12/1/05
Date

## Burlington Resources

### Drilling Rig
### 2000 psi System



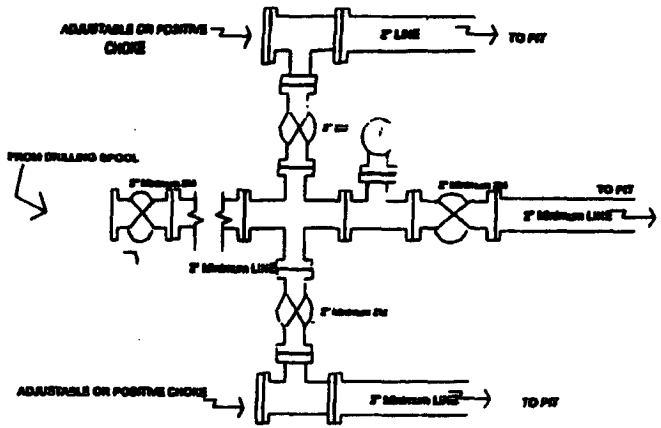

BOP installation from Surface Casing Point to Total Depth. 11" Bore 10" Nominal, 2000 psi working pressure double gate BOP to be equipped with blind rams and pipe rams. A 500 psi rotating head on top of ram preventers. All BOP equipment is 2,000 psi working pressure

Figure #1

4-20-01

## BURLINGTON RESOURCES

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

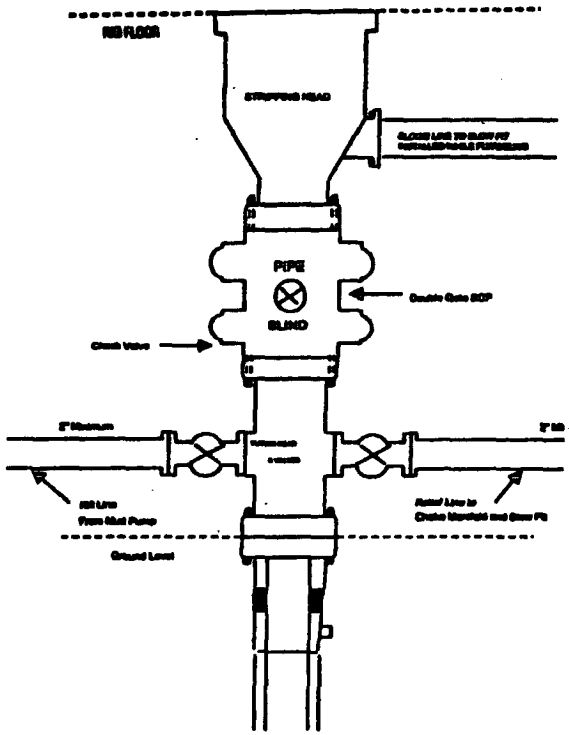



Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

## BURLINGTON RESOURCES

### Completion/Workover Rig
### BOP Configuration
### 2,000 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 stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi stripping head.

Figure #2

4-20-01