

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 NMSF-079493-A
1b. Type of Well GAS	Unit Reporting Number NMNM-078409B-MV NMNM-678409A-DK
2. Operator <b>BURLINGTON</b> RESOURCES Oil & Gas Company	6. If Indian, All. or Tribe
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	7. Unit Agreement Name San Juan 27-5 Unit
4. Location of Well Surface: Unit N (SESW), 1200' FSL, 2370' FWL Bottom: Unit O (SWSE), 700' FSL, 2000' FEL Latitude 36° 31.5868'N Longitude 107° 19.6722'W	8. Farm or Lease Name
	9. Well Number #144P
	10. Field, Pool, Wildcat Blanco Mesaverde/ Basin Dakota
	11. Sec., Twn, Rge, Mer. (NMPM) N Sec. 35, T27N, R5W API # 30-039-29911
14. Distance in Miles from Nearest Town 18 miles to Gobernador, NM	12. County Rio Arriba
	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1200'	
16. Acres in Lease	17. Acres Assigned to Well MV 304.54 E2/ DK 320 S2
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 690'- San Juan 27-5 Unit #144	
19. Proposed Depth 7983'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6641' GL	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Armando Sandoval</u> Regulatory Analyst	<u>5-12-06</u> Date

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

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.

HOLD C164 FOR directional survey

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

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

NMCCD

8

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

2006 MAY 12 AM 9:47 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039 - 29911	*Pool Code MV-72319 DK-71599	*Pool Name Blanco Mesaverde/ Basin Dakota
*Property Code 7454	*Property Name SAN JUAN 27-5 UNIT	*Well Number 144P
*GRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP	*Elevation 6641'

10 Surface Location

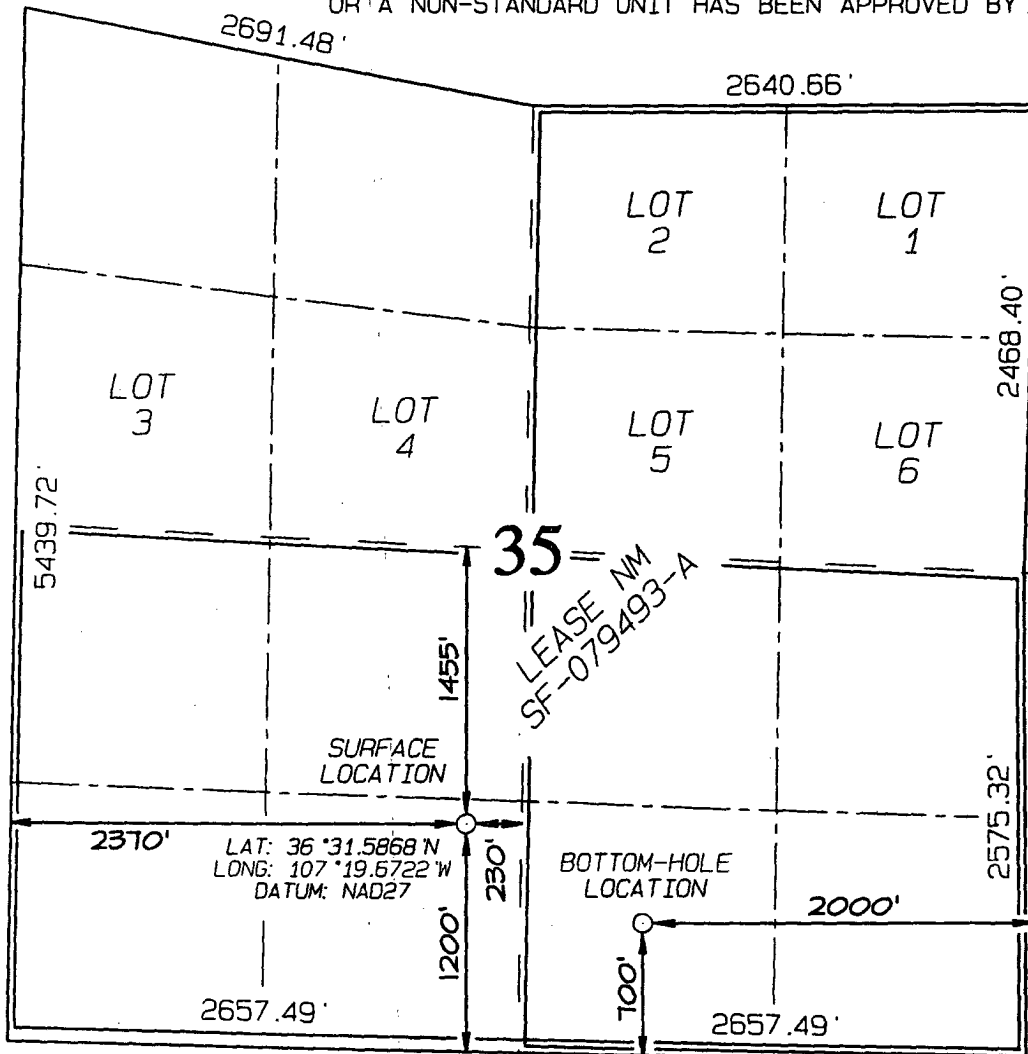
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	35	27N	5W		1200	SOUTH	2370	WEST	RIO ARriba

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
0	35	27N	5W		700	SOUTH	2000	EAST	RIO ARriba

12 Dedicated Acres MV-304.54 E2 DK-320 S2	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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

*Philana Thompson*  
Signature

Philana Thompson  
Printed Name

Regulatory Associate II  
Title

August 1, 2005  
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: JULY 26, 2005

Signature and Seal of Professional Surveyor



*JASON C. EDWARDS*  
Certificate Number 15269

Office

Energy, Minerals and Natural Resources

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

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-039-29911

5. Indicate Type of Lease

STATE ☐FEE ☐

6. State Oil &amp; Gas Lease No.

NMSF-079493-A

7. Lease Name or Unit Agreement Name

San Juan 27-5 Unit

8. Well Number

144P

9. OGRID Number

14538

10. Pool name or Wildcat

Basin Dakota/Blanco Mesaverde

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

N

:

1200

feet from the

South

line and

2370

feet from the

West

line

Section

35

Township

27N

Range

5W

NMPM

County

Rio Arriba

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

6641' GR

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

1200'

Pit Liner Thickness:

na

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

Philana Thompson

TITLE

Regulatory Associate II

DATE

9/28/2005

Type or print name

Philana Thompson

E-mail address:

pthompson@br-inc.com

Telephone No.

505-326-9530

For State Use Only

APPROVED BY

Brandon Powell

TITLE

DEPUTY OIL &amp; GAS INSPECTOR, DIST. 3

DATE

JUN 07 2006

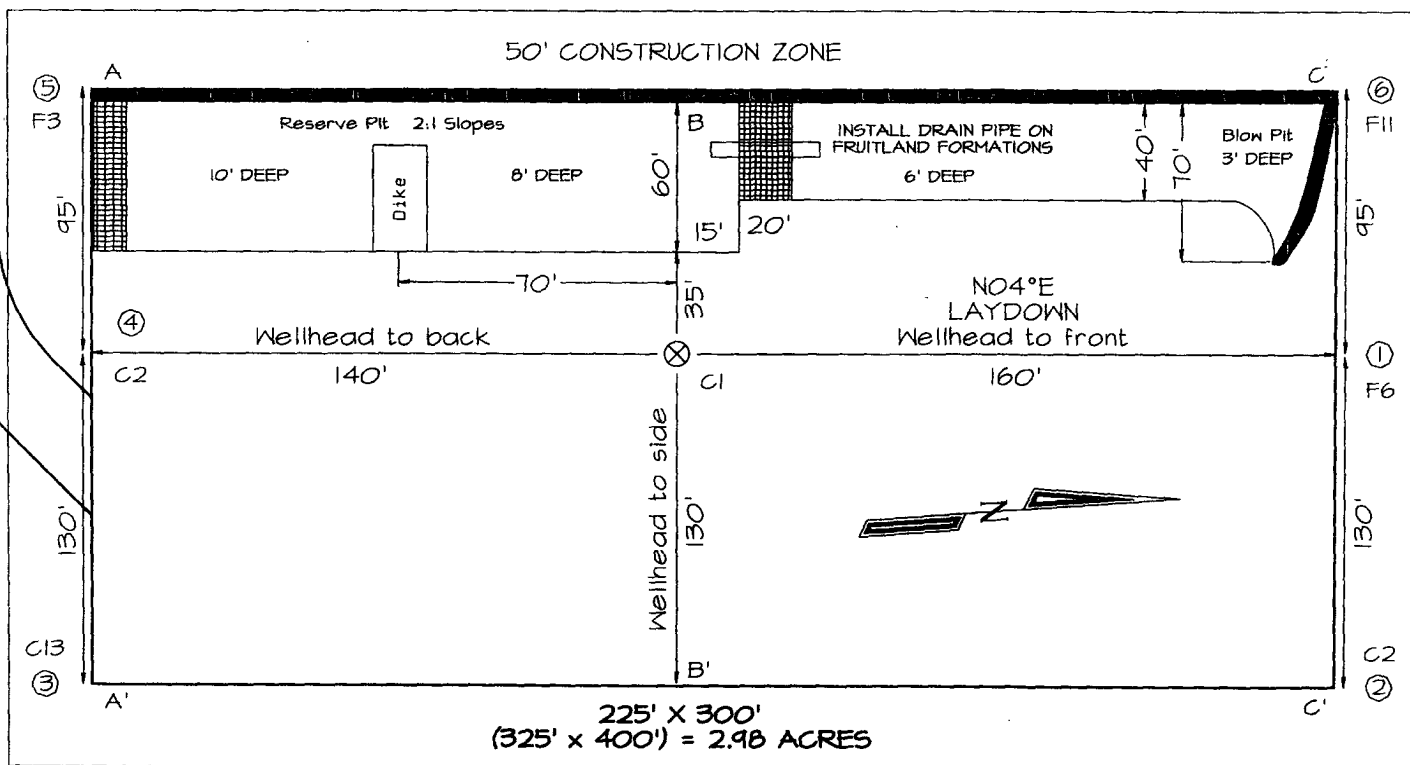
Conditions of Approval (if any):

PLAT #1

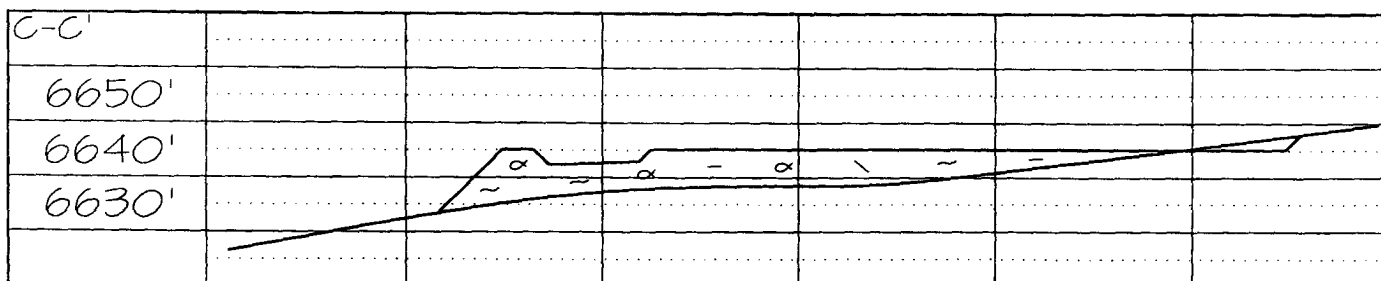
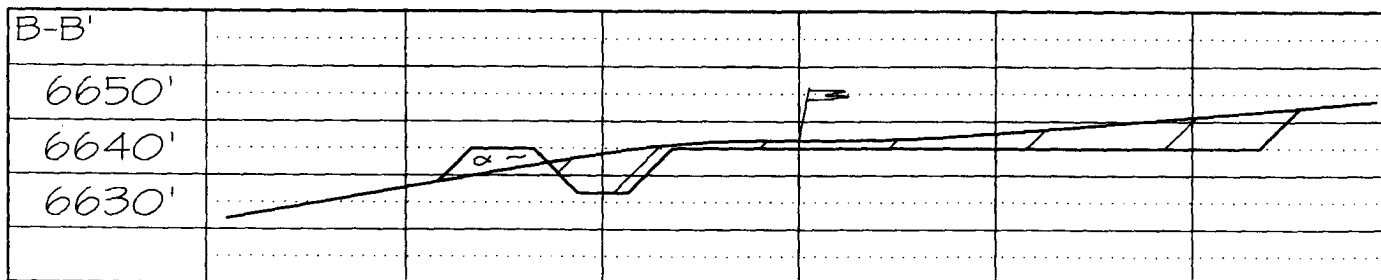
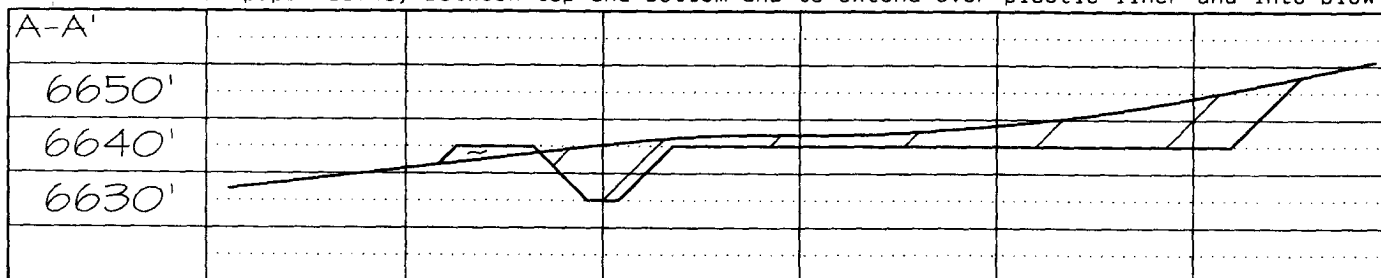
**BURLINGTON RESOURCES OIL & GAS COMPANY, LP**  
**SAN JUAN 27-5 UNIT #144P, 1200' FSL & 2370' FWL**  
**SECTION 35, T27N, R5W, NMPM, RIO ARriba COUNTY, NM**  
**GROUND ELEVATION: 6641' DATE: JULY 26, 2005**

**LATITUDE: 36°31'35"**  
**LONGITUDE: 107°19'40"**  
 DATUM: NAD1927

ACCESS  
450' (0-8%)



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

# SAN JUAN 27-5 UNIT 144P OPERATIONS PLAN

**Well Name:** SAN JUAN 27-5 UNIT 144P

**Objective:** Blanco Mesa Verde/Basin Dakota

**Location:** Rio Arriba NM

**Elevation:** 6641'

**Surface Coordinates/Footages**

T - 27 N R - 5 W Sec.: 35  
 1200' FSL 2370' FWL  
 Latitude: 36° 31.5868' N  
 Longitude: 107° 19.6722' W

**Bottom Hole Coordinates/Footages**

T - 27 N R - 5 W Sec.: 35  
 700' FSL 2000' FWL  
 Latitude: 36° 31.4830' N  
 Longitude: 107° 19.5136' W

<b><u>Formation</u></b>	<b><u>Top (TMD)</u></b>	<b><u>Top (TVD)</u></b>	<b><u>Contents</u></b>
Surface	San Jose	San Jose	
Ojo Alamo	2934'	2800'	aquifer
Kirtland	3121'	2965'	gas
Fruitland	3264'	3100'	gas
Pictured Cliffs	3566'	3395'	gas
Lewis	3722'	3551'	gas
Huerfano Bentonite	4022'	3850'	gas
Chacra	4510'	4338'	gas
Upper Cliff House	5102'	4930'	gas
Massive Cliff House	5197'	5025'	gas
Menefee	5312'	5140'	gas
Massive Point Lookout	5692'	5520'	gas
Mancos Shale	6102'	5930'	gas
Upper Gallup	6877'	6705'	gas
Greenhorn	7665'	7493'	gas
Graneros	7725'	7553'	gas
Two Wells	7749'	7577'	gas
Upper Cubero	7892'	7720'	gas
Lower Cubero	7915'	7743'	gas
Oak Canyon	7967'	7795'	gas
Encinal	7983'	7811'	gas
<b>Total Depth:</b>	<b>7983'</b>	<b>7811'</b>	gas

**Logging Program:** Cased Hole: CBL-GR  
 Open Hole: None

<b><u>Mud Program:</u></b>	<b><u>Interval (TMD)</u></b>	<b><u>Type</u></b>	<b><u>Weight (ppg)</u></b>	<b><u>Vis. (s/qt)</u></b>	<b><u>Fluid Loss (cc/30min)</u></b>
	0' - 320'	Spud	8.4-9.0	40-50	No control
	320' - 3823'	Non-dispersed	8.4-9.0	30-60	Less than 8
	3823' - 7983'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

<b><u>Casing program:</u></b>	<b><u>Interval (TMD)</u></b>	<b><u>Hole Size</u></b>	<b><u>Casing Size</u></b>	<b><u>Weight</u></b>	<b><u>Grade</u></b>
	0' - 320'	12 1/4"	9 5/8"	32.3#	H-40
	320' - 3823'	8 3/4"	7"	23.0#	L-80
	3823' - 7983'	6 1/4"	4 1/2"	11.6#	L-80

<b><u>Tubing program:</u></b>	<b><u>Interval (TMD)</u></b>	<b><u>Hole Size</u></b>	<b><u>Casing Size</u></b>	<b><u>Weight</u></b>	<b><u>Grade</u></b>
	0' - 7983'	Cased	2 3/8"	4.7#	J-55

**Wellhead Equipment**

9 5/8" x 7" X 4 1/2" x 2 3/8" - 11" (2000 psi) wellhead assembly

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

**Surface**

Drill to surface casing point of 320' and set 9.625" casing.

**Intermediate**

Mud drill to kick off point of 400'. At this point the well will be directionally drilled by building 3 degrees per 100' with an azimuth of 129.1 degrees. The end of the build will be at a TVD of 1099', a TMD of 1116', a reach of 133', and an inclination of 21.47 degrees. This angle and azimuth will be held to a TVD of 2952', a TMD of 3107', and a reach of 861'. At this point the well will be drilled with a drop of 3 degrees per 100'. The end of the drop will be at a TVD of 3651', a TMD of 3823', a reach of 994', and an angle of 0.0 degrees. 7" casing will be set at this point.

**Production**

From the shoe of the intermediate string, the well will be drilled vertically with an air hammer to a TVD of 7811' (TMD of 7983'). 4.5" casing will be set at this point.

**Cementing**

9.625" surface casing conventionally drilled: **200%** excess cement to bring cement to surface.

Run 301 cu.ft. (235 sks) Type III cement with 3% CaCl<sub>2</sub> and 1/4 pps celloflake (1.28 sks/ cu.ft.). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60° 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.

7" intermediate casing: **50%** excess cement to bring cement to surface.

Lead with 738 cu.ft. (346 sks) Premium Lite w/ 3% CaCl<sub>2</sub>, 0.25 pps Cello-Flake, 5 pps LCM-1, 0.4% FL-52 and 0.4% SMS (2.13 sks/ft<sup>3</sup>). Tail with 124 ft<sup>3</sup> (90 sks) Type III cmt. w/ 1% CaCl<sub>2</sub>, 0.25 pps Cello-Flake and 0.2% FL-52 (1.38 sks/ft<sup>3</sup>). If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC.

4.5" production casing: **30%** excess cement to achieve 100' overlap with intermediate casing.

Run 567 cu.ft. (286 sks) Premium Lite HS FM + 0.25pps Cello-Flake, 0.3% CD-32, 6.25pps LCM-1, 1% FL-52 (1.98 sks/ft<sup>3</sup>).

**BOP and Tests**

Surface to Total Depth – 11", 2000 psi double gate BOP stack (Reference Figure #1).

Surface to Total Depth – choke manifold (Reference Figure #2).


Prior to drilling out surface casing, test BOPE and casing to 600 psi for 30 minutes.

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

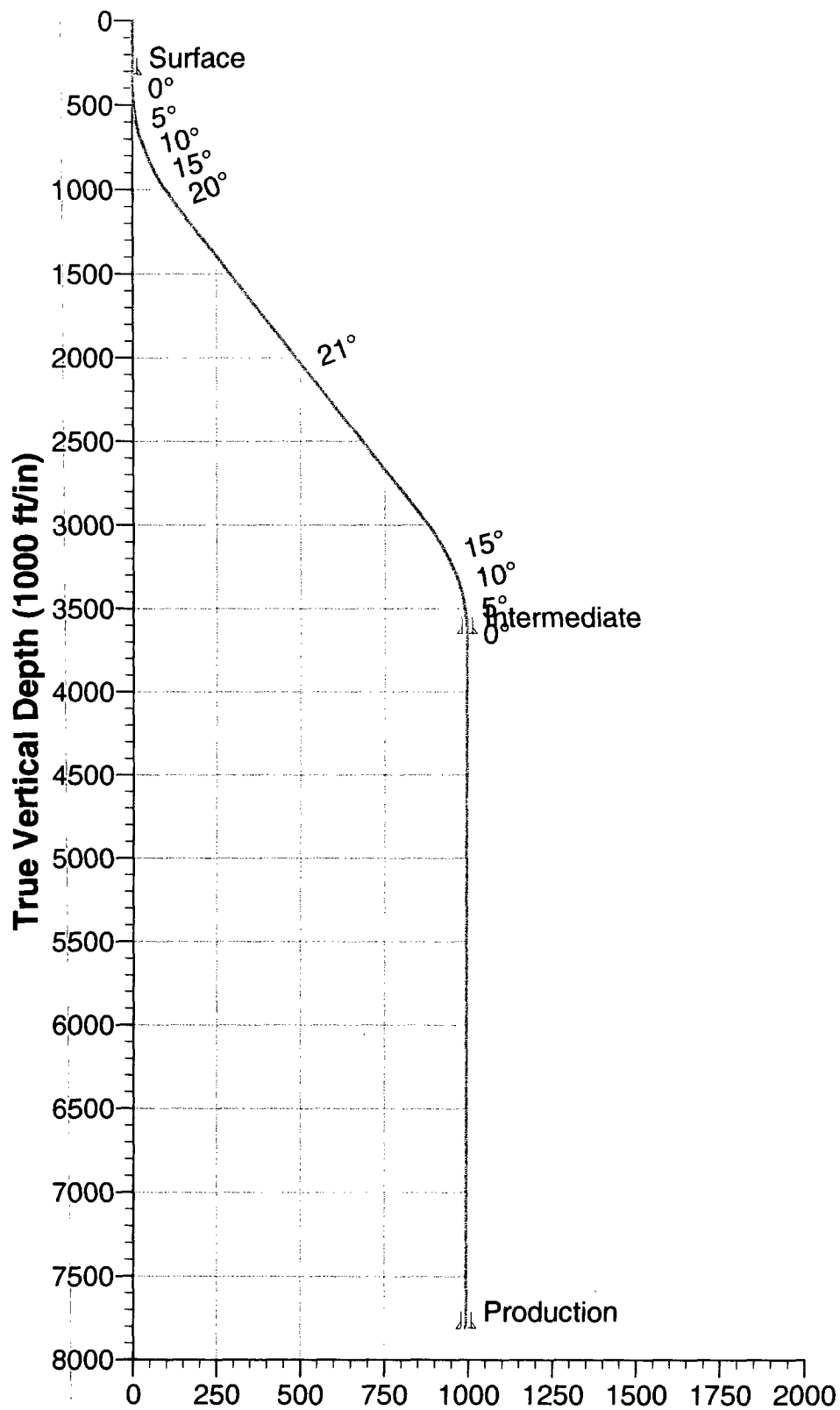
BOPE tests will be performed using an appropriately sized test plug and test pump and will be recorded using calibrated test gauges and a properly calibrated strip or chart recorder. The test will be recorded in the driller's log and will include a low pressure test requirement of 250 psig held for five minutes and a high pressure test requirement held for ten minutes as described in Onshore Order No. 2 or otherwise noted in the APD. A successful BOPE test using a test plug is considered when no pressure drop occurs over the duration of the test. Test gauges and recorders must be of the proper range and resolution commensurate with the authorized test pressure. Where the intermediate casing strings are used, only one BOPE test will be necessary contingent upon the test being conducted to the highest approved test pressure to which BOPE will be exposed. Casing pressure tests must be held for 30 minutes with no more than 10 percent pressure drop during the duration of the test.

**Additional Information:**

- This gas is dedicated to the South and East halves of Section 35.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.
- BHP is expected to be 2000 psi.

  
\_\_\_\_\_  
Drilling Engineer

5/11/06  
\_\_\_\_\_  
Date

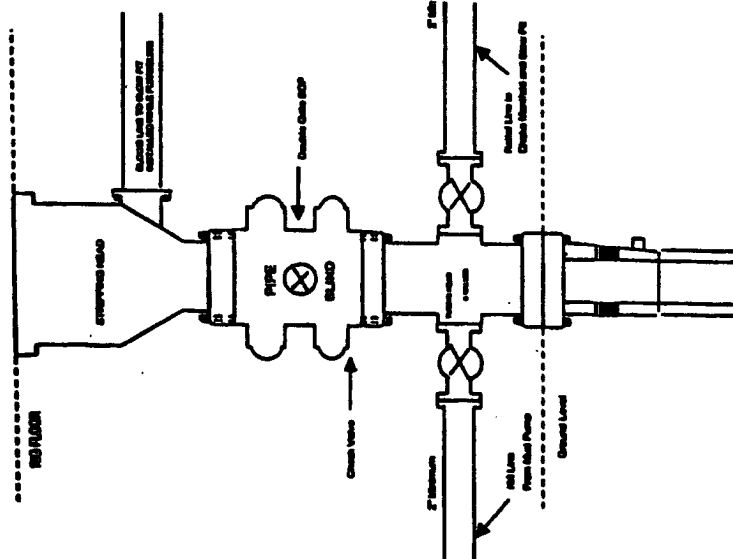


**Vertical Section at 129.10° (500 ft/in)**

**27-5 144P S-Curve**

## BURLINGTON RESOURCES

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

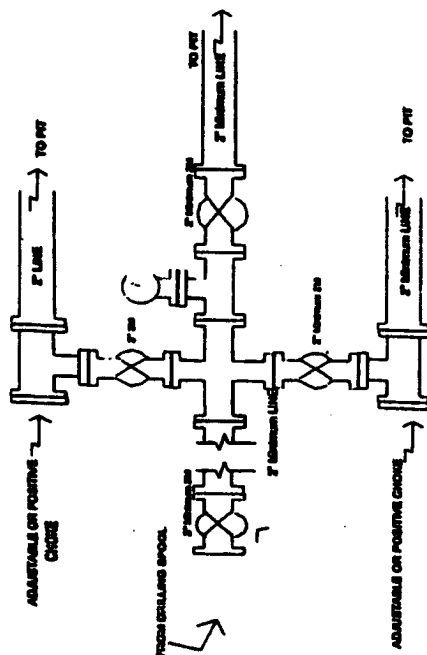


**Minimum BOP Installation for all Compaction/Workover Operations. 7-1/8" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and choke ramps. A stripping head to be installed on the top of the BOP. All BOP equipment to 2000 psi working pressure or greater excluding 500 psi stripping head.**

## Figure #2

## BURLINGTON RESOURCES

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

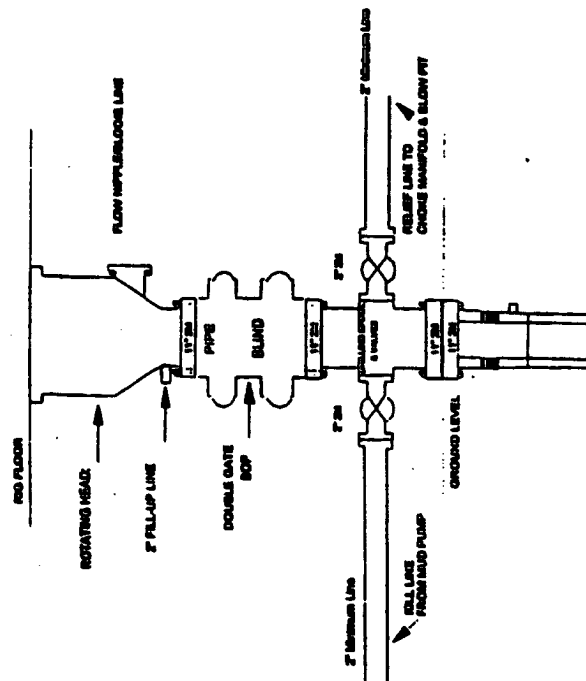


**Choice manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two choices.**

### Figure #3

## Burlington Resources

## Drilling Rig



**BOOP Installation from Surface Casing Point to Total Depth, 11" Bore 10" Nominal, 2000 psi working pressure double gate BOOP to be equipped with blind rams and pipe rams. A BOOP psi rating based on top of ram preventers. All BOOP equipment is 2,000 psi working pressure**

**Figure #1**