

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RECEIVED

2004 FEB 25 PM 12:25

Farmington, NM

1a. Type of Work
DRILL

5. Lease Number

SF-08067070

Unit Reporting Number

MV-8910010510

DK-891001051B

6. If Indian, All. or Tribe

1b. Type of Well
GAS

2. Operator
BURLINGTON

RESOURCES Oil & Gas Company

7. Unit Agreement Name

San Juan 27-4 Unit

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499

(505) 326-9700

8. Farm or Lease Name

San Juan 27-4 Unit

9. Well Number

#51M

4. Location of Well

1510' FSL, 2140' FEL

10. Field, Pool, Wildcat

Blanco Mesaverde/Basin Dakota

11. Sec., Twn, Rge, Mer. (NMPM)

Sec. 29, T27N, R04W

API # 30-039-

27648

Latitude 36° 32.4782'N, Longitude 107° 16.3072' W

14. Distance in Miles from Nearest Town

22 miles to Gobernador

12. County

Rio Arriba

13. State

NM

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

1510'

16. Acres in Lease

17. Acres Assigned to Well

MV-320 E/2

DK-320 E/2

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

1300'

19. Proposed Depth

8484'

20. Rotary or Cable Tools

Rotary

21. Elevations (DF, FT, GR, Etc.)

7197' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program

See Operations Plan attached

24. Authorized by:

Joni Clark
Regulatory Specialist

1/30/04
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.

NMOC

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

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

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

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

RECEIVED
200 FEB 25 PM 12:25

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-27648	*Pool Code 72319/71599	*Pool Name Blanco Mesaverde/Basin Dakota
*Property Code 7452	*Property Name SAN JUAN 27-4 UNIT	*Well Number 51M
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP	*Elevation 7197'

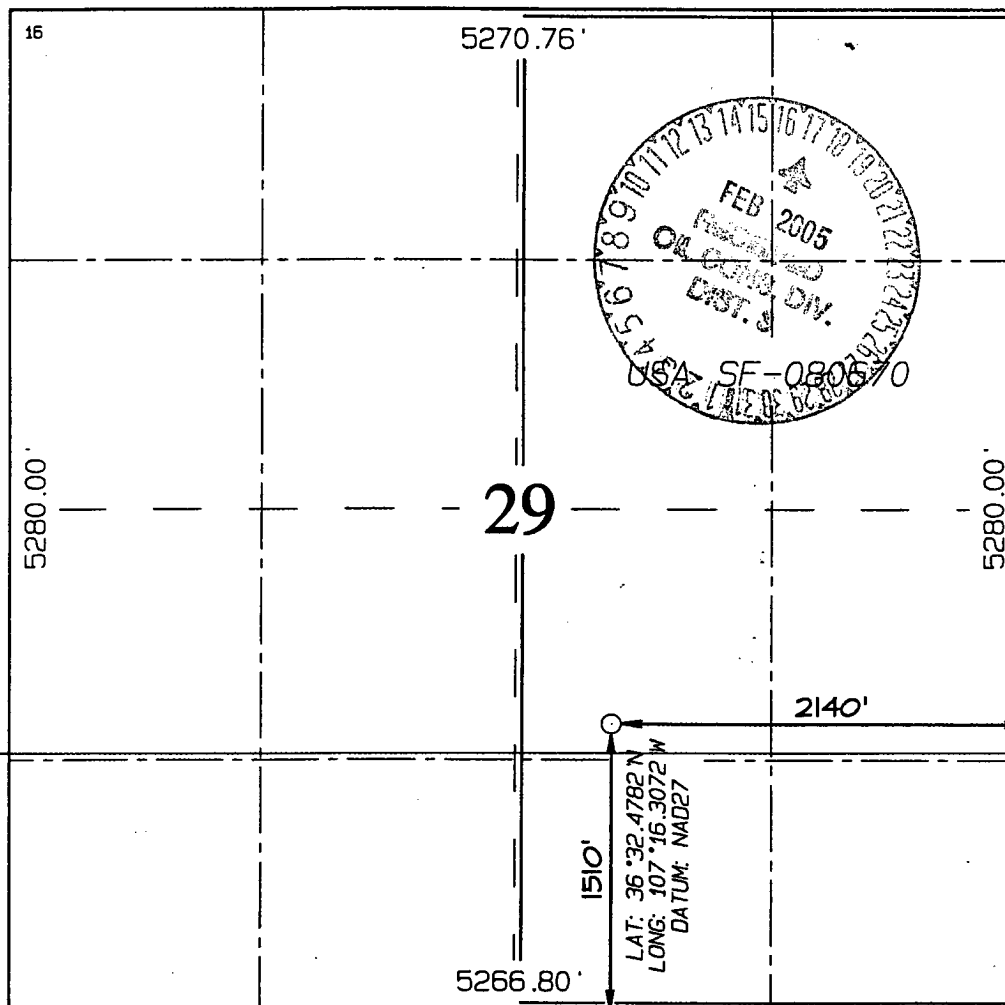
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	29	27N	4W		1510	SOUTH	2140	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 MV-E/320 DK-E/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



17 OPERATOR CERTIFICATION

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

Joni Clark
Signature
Joni Clark

Printed Name
Regulatory Specialist
Title

1-30-04
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: SEPTEMBER 25, 2003

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

LATITUDE: 36°32'29"
LONGITUDE: 107°16'18"
DATUM: NAD1927

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 #51M
Location: 1510' FSL, 2140' FEL, Section 29, T-27-N, R-4-W
 Rio Arriba County, New Mexico
 Latitude 36° 32.48'N, Longitude 107° 16.31'W
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 7197' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	3461'	
Ojo Alamo	3461'	3676'	aquifer
Kirtland	3676'	3865'	gas
Fruitland	3865'	4040'	
Pictured Cliffs	4040'	4119'	gas
Lewis	4119'	4543'	gas
Intermediate TD	4219'		
Huerfanito Bentonite	4543'	5006'	gas
Chacra	5006'	5624'	gas
Upper Cliff House	5624'	5731'	
Massive Cliff House	5731'	5845'	
Menefee	5845'	6221'	gas
Point Lookout	6221'	6709'	gas
Mancos	6709'	7354'	gas
Gallup	7354'	8159'	gas
Greenhorn	8159'	8219'	gas
Graneros	8219'	8242'	gas
Dakota	8242'	8374'	gas
Upper Cubero	8374'	8412'	gas
Lower Cubero	8412'	8474'	gas
Oak Canyon	8474'		
TD	8484'		

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- 200'	Spud MUD/Air/Air Mist	8.4-9.0	40-50	no control
200- 4219'	LSND	8.4-9.0	30-60	no control
4219- 8484'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid control.

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' - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 4000'	7"	20.0#	J-55
8 3/4"	4000' - 4219'	7"	23.0#	L-80
6 1/4"	0' - 7800'	4 1/2"	10.5#	J-55
6 1/4"	7800' - 8484'	4 1/2"	11.6#	N-80

Tubing Program: 0' - 8484' 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 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 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 1/2" 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 conventionally drilled -

Cement with 147 sacks Type III cement with 0.25 pps Celloflake, 3% calcium chloride. (188 cu ft - 200% excess, bring cement to 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.

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

7" intermediate casing -

Lead with 384 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 (941 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/11 sxs Premium Lite w/ 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% SMS. Tail w/90 sxs Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss. Second stage: 373 sacks with Premium Lite cement with 3% calcium chloride, 0.25 pps Celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (941 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 @ 3676'. Two turbolating centralizers at the base of the Ojo Alamo 3676'. 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 293 sks Premium Lite HS w/ 0.25 pps Celloflake, 0.3% CD-32, 6.25 pps LCM-1 and 1% FL-52. (581 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 the Dakota formations will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

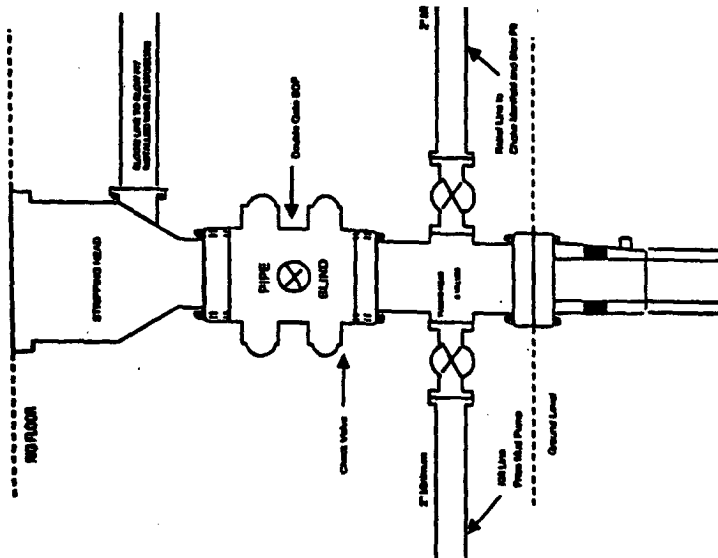
Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
Dakota	2500 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The east half of Section 29 is dedicated to the Mesa Verde and the Dakota.
- This gas is dedicated.

Sean Conigan
Drilling Engineer

February 24, 2004
Date

BURLINGTON RESOURCES

Completion/Workover Rig
BOP Configuration
2,000 psi System

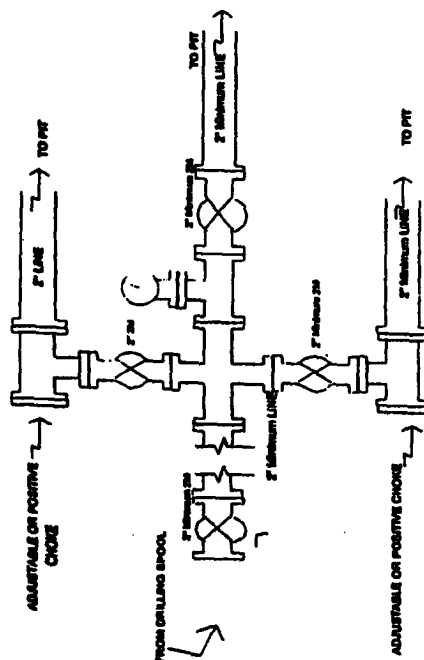


Minimum BOP installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi stripping head.

Figure #2

BURLINGTON RESOURCES

Drilling Rig
Choke Manifold Configuration
2000 psi System

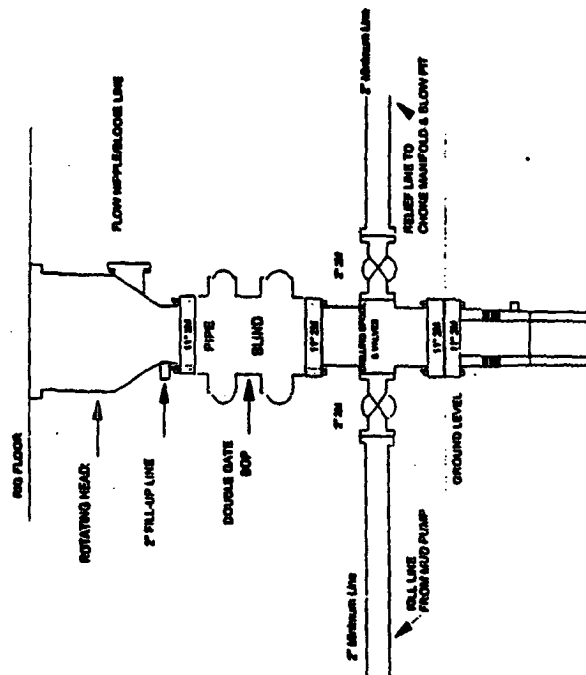


Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

Burlington Resources

Drilling Rig
2000 psi System



BOP installation from Surface Casing Point to Total Depth. 11\"/>

Figure #1

4-20-01

4-20-01