

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2004 FEB 18 PM 2:53

1a. Type of Work DRILL	5. Lease Number NMSF-080674 Unit Reporting Number Farmington, NM	
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	
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 143A	
4. Location of Well 530' FSL, 1520' FEL Latitude 36° 33.1 Longitude 107° 14.0	10. Field, Pool, Wildcat Blanco Mesaverde 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 22, T-27-N, R-4-W API # 30-039- 27616	
14. Distance in Miles from Nearest Town 21 miles from 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 E/2	
16. Acres in Lease	18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 190'	
19. Proposed Depth 6688'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 7261' GR	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Nancy Oltenans</u> Regulatory/Compliance Supervisor	<u>2-9-04</u> Date	

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE 7-29-04

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.

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

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

NMOCD

District II
PO Drawer DD, Artesia, NM 88211-0719

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

District III
1000 Rio Brazos Rd., Aztec, NM 87410

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

District IV
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039- 27616		*Pool Code 72319	*Pool Name Blanco Mesaverde
*Property Code 7452	*Property Name SAN JUAN 27-4 UNIT		*Well Number 143A
*GRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP		*Elevation 7261'

¹⁰ Surface Location

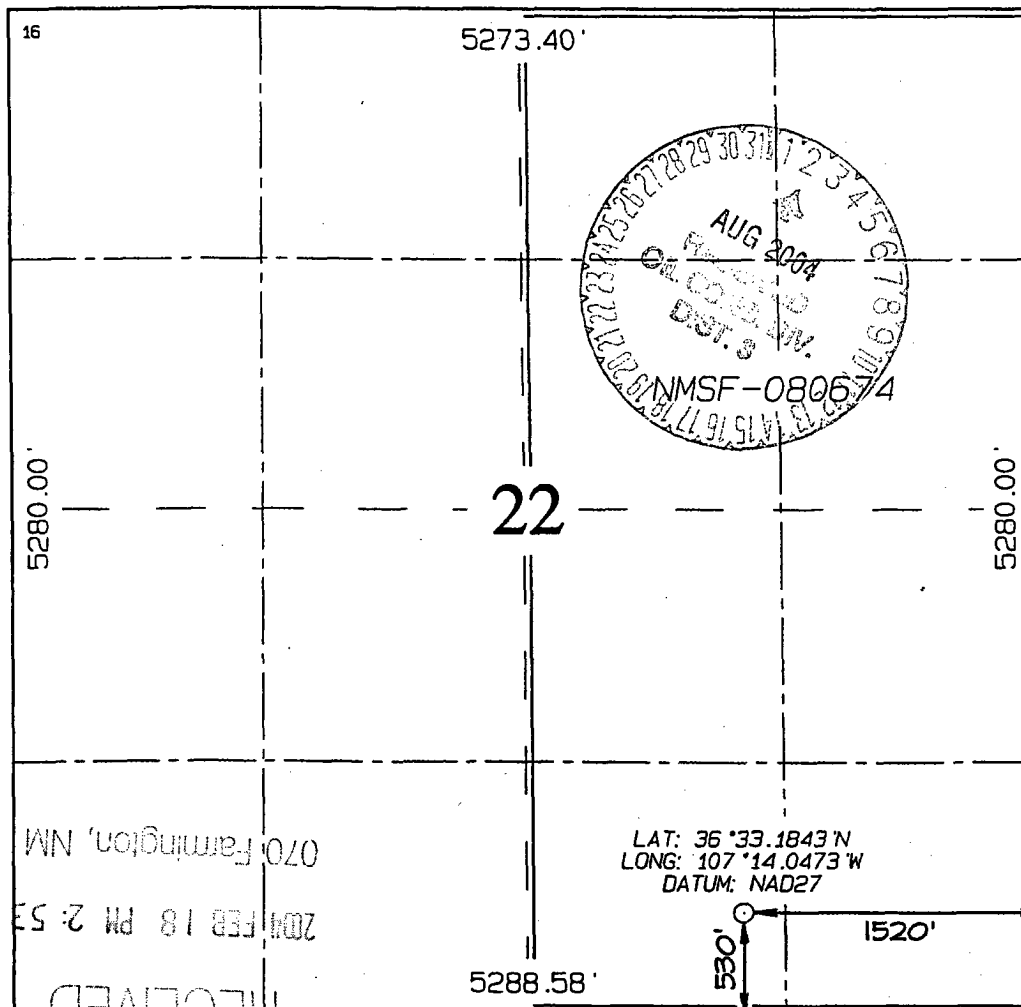
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	22	27N	4W		530	SOUTH	1520	EAST	RIO ARriba

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	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

Nancy Oltmanns
Signature

Nancy Oltmanns
Printed Name

Senior Staff Specialist
Title

2-9-04
Date

2-9-04
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.

Date of Survey: JULY 3, 2003

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

LATITUDE: 36°33'11"
LONGITUDE: 107°14'03"
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 #143A
• Location: 530' FSL, 1520' FEL, Section 22, T-27-N, R-4-W
Rio Arriba County, New Mexico
Latitude 36° 33.1843, Longitude 107° 14.0473
Formation: Blanco Mesa Verde
Elevation: 7261' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	3549'	
Ojo Alamo	3549'	3829'	aquifer
Kirtland	3829'	3959'	gas
Fruitland	3959'	4123'	
Pictured Cliffs	4123'	4206'	gas
Lewis	4206'	4638'	gas
Intermediate TD	4456'		
Huerfanito Bentonite	4638'	5093'	gas
Chacra	5093'	5833'	gas
Cliff House	5833'	5936'	
Menefee	5936'	6288'	gas
Point Lookout	6288'		gas
TD	6688'		

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- 300'	Spud MUD/Air/Air Mist	8.4-9.0	40-50	no control
300- 4456'	LSND	8.4-9.0	30-60	no control
4456- 6688'	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' - 300'	9 5/8"	32.3#	H-40
8 3/4"	0' - 4000'	7"	20.0#	J-55
8 3/4"	4000' - 4456'	7"	23.0#	L-80
6 1/4"	4356' - 6688'	4 1/2"	10.5#/11.6#	J-55

Tubing Program: 0' - 6688' 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 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 220 sacks Type III cement with 0.25 pps Celloflake, 3% calcium chloride. (282 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 406 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 (989 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 with 26 sacks Premium Lite cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.4% fluid loss, 5 pps LCM-1, 0.4% sodium metasilicate. Tail with 90 sacks with Type III cement with 1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss. Second stage: 380 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 (989 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 @ 3829'. Two turbolating centralizers at the base of the Ojo Alamo 3829'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Liner -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Cement with 168 sacks Premium Lite HS w/ 0.25 pps Celloflake, 0.3% CD-32, 6.25 pps LCM-1 and 1% FL-52. (333 cu.ft., 40% 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:

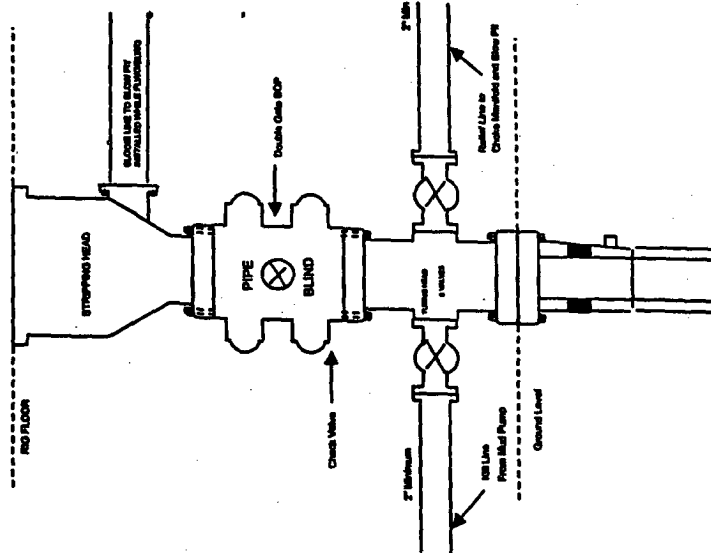
- The Mesa Verde formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
- 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 22 is dedicated to the Mesa Verde.
- This gas is dedicated.

Sean Corrigan
Drilling Engineer

February 18, 2004
Date

Completion/Workover Rig
BOP Configuration
2,000 psi System

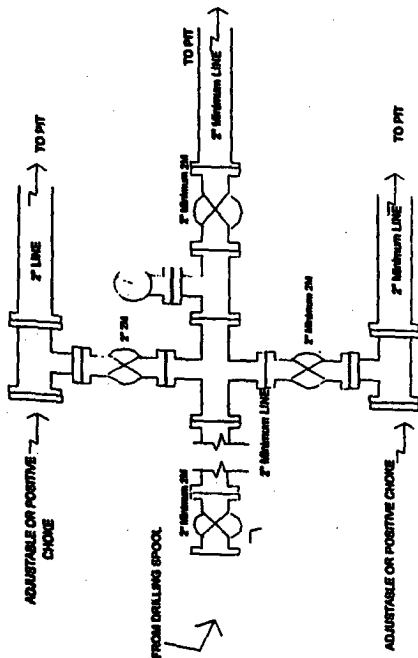


Minimum BOP installation for all Completion/Workover Operations. 7-1/16" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A stripping head to be installed on the top of the BOP. All BOP equipment is 2000 psi working pressure or greater excluding 500 psi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

Figure #2

4-20-01

Drilling Rig
Choke Manifold Configuration
2000 psi System

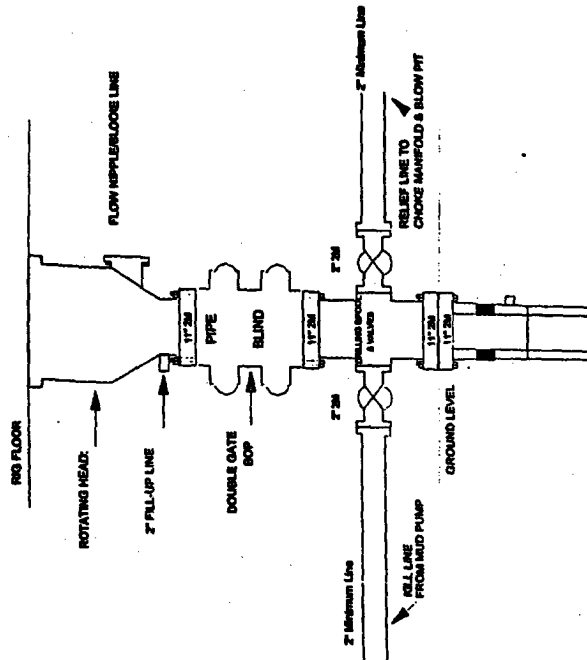


Choke manifold installation from Surface Casing Point to Total Depth. 2,000psi working pressure equipment with two chokes.

Figure #3

4-20-01

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

20-01