

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number NM-0558144 Unit Reporting Number 070 Farmington, NM
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator BURLINGTON RESOURCES Oil & Gas Company	7. Unit Agreement Name
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Trail Canyon 9. Well Number 104S
4. Location of Well 815' FSL, 1620' FEL Latitude 36°57.86140'N, Longitude 107°40'35.9505'W	10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) Sec 21., T-32-N, R-8-W API # 30-045-31333
14. Distance in Miles from Nearest Town 29.8 Miles	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 815	17. Acres Assigned to Well 320 EA
16. Acres in Lease	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 2589' Trail Canyon #1	
19. Proposed Depth 3813	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6901 Gr.	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>[Signature]</u> Regulatory/Compliance Supervisor	Date <u>12-20-02</u>

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY David J. Mankiewicz TITLE _____ DATE APR 23 2003

Archaeological Report to be submitted

Threatened and Endangered Species Report to be submitted

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.

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

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-31333		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 18631	*Property Name TRAIL CANYON		*Well Number 104S
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS, INC.		*Elevation 6901'

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	21	32-N	8-W		815'	SOUTH	1620'	EAST	SAN JUAN

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 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**

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FD 3 1/4"
B.L.M. BC
1962

USA NM-0558144

LAT. 36°57.86140' N. (NAD 27)
LONG. 107°40.59505' W

509'
325'
1620'
970'
815'
5180.23' (M)

FD 3 1/4"
B.L.M. BC
1962

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17 OPERATOR CERTIFICATION

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

Peggy Cole

Signature

Peggy Cole

Printed Name

Regulatory Supervisor

Title

Date 12-20-02

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.

DAVID A. JOHNSON

Date of Survey

Signature and Seal of Professional Surveyor:

Seal of Professional Surveyor: 14827

REGISTERED PROFESSIONAL SURVEYOR

14827

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OPERATIONS PLAN

Well Name: Trail Canyon 104S
Location: 815'FSL, 1620'FEL, Section 21, T-32-N, R-08-W
San Juan County, NM
Formation: Basin Fruitland Coal
Elevation: 6901' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	2662'	
Ojo Alamo	2662'	2802'	aquifer
Kirtland	2802'	3236'	
Fruitland	3236'	3505'	gas
Intermediate TD	3475'		
Fruitland Coal Top	3505'	3813'	gas
Fruitland Coal Base	3813'		gas
Total Depth	3813'		
Pictured Cliffs	3821'		

Logging Program:

Wireline: GR/ILD/NHPI/RHOB-Run GR/NPHI back to surface.
Mudlog: Intermediate to TD.

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud	8.4-9.0	40-50	no control
120'-3475'	Non-dispersed	8.4-9.0	30-60	no control
3475'-3813'	Air/Mist			

Casing Program:

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3475'	7"	20.0#	J-55
6 1/4"	3475' - 3813'	Open Hole		

Tubing Program:

0' - 3813'	2 3/8"	4.7#	J-55
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Float Equipment: 9 5/8" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing - guide shoe and self-fill insert float collar. Standard centralizers run every other joint above shoe. Run insert float one joint above guide shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2802'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: 9 5/8" x 7" x 2 3/8" x 11" 2000 psi xmas tree assembly.

Cementing:

9-5/8" surface casing - cement with 32 sxs Class A, B Portland Type I, II cement (38 cu.ft. of slurry, bring cement to surface through 3/4" line) or equivalent.

WOC 24 hours for pre-set holes or 8 hours for conventionally set holes before pressure testing or drilling out from under surface casing.

7" intermediate casing - lead w/429 sacks Premium Lite with, 3% calcium chloride, 1/4#/sack flocele, 5 pps Lcm-1, 0.4% FL-52, 0.4% sms. Tail with 90 sacks Type III cement with 1% calcium chloride and 1/4 pps flocele and 0.2% FL-52 (1039 cu.ft., 100% excess to circulate to surface).

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

BOP and tests:

Surface to intermediate TD - 11" 2000 psi (minimum) double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test rams to 600#/30 min.

Intermediate TD to Total Depth - 7 1/6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to drilling out intermediate casing, test blind rams and casing to 2500 psi for 30 minutes; all pipe rams and casing to 2500 psi for 30 minutes each.

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 500 psi.
- * This gas is dedicated.
- * The East half of Section 21 is dedicated to the Fruitland Coal.

Eric J. Diles
Drilling Engineer

1/8/03
Date