

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RECEIVED

1a. Type of Work DRILL	5. Lease Number NMSF078311
1b. Type of Well GAS	Unit Reporting Number 070 Farmington, NM
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
4. Location of Well 1000' FNL, 930' FEL  Latitude 36° 58.5595'N, Longitude 108° 07.7721'W	8. Farm or Lease Name Cundiff
	9. Well Number 100
	10. Field, Pool, Wildcat Basin Fruitland Coal
	11. Sec., Twn, Rge, Mer. (NMPM) A Sec. 19, T-32-N, R-12-W
	API # 30-045- 31794
14. Distance in Miles from Nearest Town 15 miles to Post Office in La Plata, NM	12. County San Juan
	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 930'	
16. Acres in Lease	17. Acres Assigned to Well 317.36 N2
18. Distance from Proposed Location to Nearest Well, Drig. Compl, or Applied for on this Lease 45'	
19. Proposed Depth 2064'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 5902' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Peggy Case</u> Regulatory Compliance Supervisor	Date <u>6-19-03</u>

PERMIT NO. \_\_\_\_\_

APPROVAL DATE \_\_\_\_\_

APPROVED BY /s/ David J. Markiewicz

TITLE \_\_\_\_\_

DATE SEP 25 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.

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

NMOCED

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

DISTRICT I  
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II  
P.O. Drawer DD, Artesia, N.M. 88211-0719

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

P.O. Box 2088  
Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045- <b>31794</b>	<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name Basin Fruitland Coal
<sup>4</sup> Property Code 6938	<sup>5</sup> Property Name CUNDIFF	<sup>6</sup> Well Number 100
<sup>7</sup> GRID No. 14538	<sup>8</sup> Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	<sup>9</sup> Elevation 5902

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	19	32-N	12-W		1000	NORTH	930	EAST	SAN JUAN

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres N/317.36		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> 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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LOT 1	FD 3 1/4" BLM 1952 BRASS CAP	N 88°46'24" W 2720.42'(M)	1000'	FD 3 1/4" BLM 1952 BRASS CAP
USA SF-078311		LAT: 36°58.5595' N. (NAD 27) LONG: 108°07.7721' W. (NAD 27)	930'	
LOT 2	USA SF-078311	USA SF-078311	01°39'57" W 2634.49' (M)	
LOT 3				FD 3 1/4" BLM 1952 BRASS CAP
LOT 4				

RECEIVED  
2003 JUL 17 PM 2:18  
070 Farmington, NM

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  
6-19-03  
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.

DAVID A. JOHNSON  
Date of Survey  
NEW MEXICO  
Signature and Seal of Professional Surveyor  
14827  
REGISTERED PROFESSIONAL SURVEYOR  
14827

Certificate Number

## OPERATIONS PLAN

**Well Name:** Cundiff #100  
**Location:** 1000' FNL, 930' FEL Section 19, T-32-N, R-12-W  
Latitude 36° 58.5595'N, Longitude 108° 07.7721'W  
San Juan County, NM  
**Formation:** Basin Fruitland Coal  
**Elevation:** 5902' GL

<b>Formation:</b>	<b>Top</b>	<b>Bottom</b>	<b>Contents</b>
Surface	Kirtland	1395'	
Fruitland	1395'	1859'	gas
Fruitland Coal	1859'	1864'	gas
Pictured Cliffs	1864'	2064'	gas
<b>Total Depth</b>	<b>2064'</b>		

**Logging Program:** Density/Cal/GR TD-surface.

**Mud log:** none

**Coring Program:** none

**Mud Program:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 120'	Spud	8.4-9.0	40-50	no control
120-2064'	Non-dispersed	8.4-9.5	30-60	no 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>
8 3/4"	0' - 120'	7"	20.0#	J-55
6 1/4"	0' - 2064'	4 1/2"	10.5#	J-55

**Tubing Program:**

0' - 2064'	2 3/8"	4.7#	J-55
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**Float Equipment:** 7" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - guide shoe and self-fill float collar. Standard centralizers run every other joint for 300'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

**Wellhead Equipment:** 7" x 4 1/2" x 2 3/8" x 11" 2000 psi screw on independent wellhead.

**Cementing:**

7" surface casing - cement with 38 sx Class "B" Type III cement with 0.25 pps Celloflake and 3% calcium chloride (54 cu.ft. of slurry, 200% excess to circulate to surface). WOC 24 hours for pre-set holes or 8 hours for conventionally set holes before pressure testing or drilling out from under surface casing. Test casing to 600 psi for 30 minutes.

4 1/2" production casing - Lead w/98 sx Premium Lite cement w/3% calcium chloride, 1/4 pps Cello-flake, 5 pps LCM-1, 0.4% FL-52, and 0.4% SMS. Tail w/90 sx Type III cement w/1% calcium chloride, 1/4 pps Cello-flake, and 0.2% FL-52 (317 cu.ft. of slurry, 50% excess to circulate to surface.) If cement is not circulated to surface, a temperature survey or CBL will be run during drilling or completion operations to determine TOC.

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

**BOP and tests:**

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

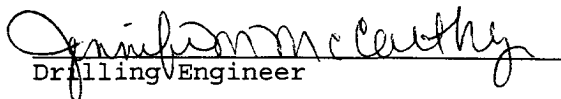
Completion - 7 1/16" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 2000 psi/15 min.

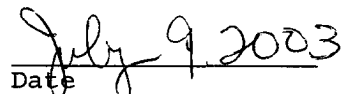
From surface to TD - choke manifold (Reference Figure #3).

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 and commingled.
- \* Anticipated pore pressure for the Fruitland is 500 psi.
- \* This gas is dedicated.
- \* The north half of Section 19 is dedicated to the Fruitland Coal.

  
Drilling Engineer

  
Date