

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 NM-0764 Unit Reporting Number
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator <b>BURLINGTON RESOURCES</b> 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 Knauff 9. Well Number 4R
4. Location of Well 1850' FSL, 1590' FWL Latitude 36° 37.0, Longitude 107° 56.4	10. Field, Pool, Wildcat Fulcher Kutz Pict.Cliffs 11. Sec., Twn, Rge, Mer. (NMPM) K Sec.31, T-28-N, R-10-W API # 30-045-30060
14. Distance in Miles from Nearest Town 8 miles from Bloomfield	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1590'	17. Acres Assigned to Well 165.01
16. Acres in Lease	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 50'	
19. Proposed Depth 2028'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 5904' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	<b>DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"</b>
24. Authorized by: <u><i>Regan Cole</i></u> Regulatory/Compliance Administrator	<u>11-8-99</u> Date

PERMIT NO. /s/ Charlie Beecham

APPROVAL DATE FEB - 8

APPROVED BY /s/ Charlie Beecham

TITLE \_\_\_\_\_

DATE FEB - 8

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.

INMOCD

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-30060		*Pool Code 77200	*Pool Name Fulcher Kutz Pictured Cliffs
*Property Code 7230	*Property Name KNAUFF		*Well Number 4R
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		*Elevation 5904'

<sup>10</sup> Surface Location

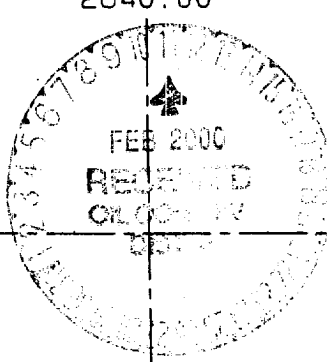
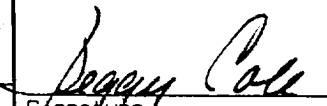


UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	31	28N	10W		1850	SOUTH	1590	WEST	SAN JUAN

<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 SW/165.01	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<sup>16</sup> 1399.20' LOT 1	1320.00'	2640.00'	<div></div>	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief   Signature Peggy Cole Printed Name Regulatory Administrator Title 11-8-99 Date
LOT 2				
5280.00' LOT 3 USA NM-0764 1590'	31			
LOT 4 1403.82'	1850' 1320.00'	2640.00'		
				<sup>18</sup> 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.  OCTOBER 1, 1999 Date of Survey  Signature and Seal of Professional Surveyor  Certificate Number 6857

## OPERATIONS PLAN

**Well Name:** Knauff #4R  
**Location:** 1850' FSL, 1590' FWL, Section 31, T-28-N, R-10-W  
San Juan County, New Mexico  
Latitude 36° 37.0, Longitude 107° 56.4  
**Formation:** Fulcher Kutz Pictured Cliffs  
**Elevation:** 5904' GL

Formation:	Top	Bottom	Contents
Surface	San Jose	744'	
Ojo Alamo	744'	890'	aquifer
Kirtland	890'	1340'	gas
Fruitland	1340'	1828'	gas
Pictured Cliffs	1828'		gas
<b>Total Depth</b>	<b>2028'</b>		

**Logging Program:** None *Cgd hole SR/CCL per P. Cole*  
*CEH*

**Coring Program:** None

**Mud Program:**

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud	8.4-9.0	40-50	no control
120-2028'	FW	8.4-9.0	32-45	no control

**Casing Program (as listed, equivalent, or better):**

Hole Size	Depth Interval	Csg. Size	Wt.	Grade
8 3/4"	0 - 120'	7"	20#	J-55
6 1/4"	0 - 2028'	3 1/2"	9.3#	J-55

**Float Equipment:** 7" surface casing - saw tooth guide shoe.  
Centralizers will be run in accordance with Onshore Order #2.

3 1/2" production casing - float shoe on bottom. Three centralizers run every other joint above shoe. Seven centralizers run every 3rd joint to the base of the Ojo Alamo @ 890'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 890'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

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

**Cementing:**

7" surface casing - cement with 46 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (54 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

3 1/2" production casing - Lead w/2 sx Class "B" w/3% sodium metasilicate, 1/4 pps cellophane and 5 pps gilsonite. Tail w/50 sx 50/50 Class "B" Poz w/2% gel, 1/4 pps cellophane, 5 pps gilsonite and 2% calcium chloride (652 cu.ft. of slurry, 120% excess to circulate to surface). WOC 8 hrs. If cement does not circulate to surface, a CBL will be run during completion to determine TOC.

**BURLINGTON RESOURCES OIL & GAS COMPANY KNAUFF #4R**

1850' FSL & 1590' FWL, SECTION 31, T28N, R10W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO

APD MAP #1

NO NEW CONSTRUCTION  
NE/SW SECTION 31, T28N, R10W.

