

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 NM-012708 Unit Reporting Number 070 Farmington, NM
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 Howell E 9. Well Number 300S
4. Location of Well 775' FSL, 775' FEL  Latitude 36° 48.3844'N, Longitude 107° 38.2597'W	10. Field, Pool, Wildcat Basin Fruitland Coal  11. Sec., Twn, Rge, Mer. (NMPM) Sec. 14, T-30-N, R-8-W API # 30-045-31293
14. Distance in Miles from Nearest Town 14.6 Miles Blanco Post Office	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 775'	17. Acres Assigned to Well 284.2 EP
16. Acres in Lease	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 20'	20. Rotary or Cable Tools Rotary
19. Proposed Depth 3000	22. Approx. Date Work will Start
21. Elevations (DF, FT, GR, Etc.) 6100' GR	
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>David J. Mankiewicz</u> Regulatory/Compliance Supervisor	Date <u>12-19-02</u>

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY /s/ David J. Mankiewicz TITLE \_\_\_\_\_ DATE MAR - 4 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".

NMOCD

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.2  
and appeal pursuant to 43 CFR 3165.4

DISTRICT I  
1825 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

<sup>1</sup> API Number 30-045-31293	<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name Basin Fruitland Coal
<sup>4</sup> Property Code 7125	<sup>5</sup> Property Name HOWELL E	<sup>6</sup> Well Number 300S
<sup>7</sup> GRID No. 14538	<sup>8</sup> Operator Name BURLINGTON RESOURCES OIL & GAS, INC.	<sup>9</sup> Elevation 6100'

<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
P	14	30-N	8-W		775'	SOUTH	775'	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 E/284.2					<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

16		17 OPERATOR CERTIFICATION	
<p>LOT 4 LOT 3 LOT 2 LOT 1</p> <p>LOT 5 LOT 6 LOT 8</p> <p>LOT 12 LOT 11 LOT 10 LOT 9</p> <p>LOT 13 LOT 14 LOT 15 LOT 16</p>		<p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Peggy Cole</i> Signature Peggy Cole Printed Name Regulatory Supervisor Title Date 12-17-02</p>	
18 SURVEYOR CERTIFICATION		19	
<p>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.</p> <p><i>NOVADA JOHNSON</i> Date of Survey Signature and Seal of Professional Surveyor 14827 REGISTERED PROFESSIONAL SURVEYOR Certificate Number</p>			

# OPERATIONS PLAN

Well Name: Howell E 300S  
Location: 775' FSL, 775' FEL, Section 14, T-30-N, R-08-W  
San Juan County, NM  
Formation: Basin Fruitland Coal  
Elevation: 6100 GR

Formation:	Top	Bottom	Contents
Surface	San Jose	1820'	
Ojo Alamo	1820'	1991'	aquifer
Kirtland	1991'	2687'	
Fruitland	2687'	2707'	gas
Fruitland Coal Top	2707'	2990'	gas
Intermediate TD	2724'		
Fruitland Coal Base	2990'	3000'	gas
Total Depth	3000'		
T/Pictured Cliffs	3004		

Logging Program: None

## Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud	8.4-9.0	40-50	no control
120-2724'	Non-dispersed	8.4-9.0	30-60	no control
2724-3000'	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' - 2724'	7"	20.0#	K-55
6 1/4"	2624' - 3000'	5 1/2"	15.5#	K-55

## Tubing Program:

0' - 3000'      2 3/8"      4.7#      J-55

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 @ 1991'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

5 1/2" production liner - Pre-drilled liner run from total depth to the 7" casing with an overlap. Liner hanger is a slip grip type.

Wellhead Equipment: 9 5/8" x 7" x 2 3/8" x 11" 3000 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/323 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 Type III cement with 1% calcium chloride and 1/4 pps flocele and 0.2% FL-52 (813 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.

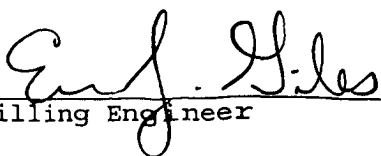
Intermediate TD to Total Depth - 7 1/6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to drilling out intermediate casing, test blind rams and casing to 2500 psi for 30 minutes; all pipe rams and casing to 2500 psi for 30 minutes each.

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 14 is dedicated to the Fruitland Coal.

  
Drilling Engineer

12/17/02  
Date