

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 SF078387	2003-07-13 PM 3:25
1b. Type of Well GAS	Unit Reporting Number 070 Farmington, NM	
2. Operator BURLINGTON 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 1535' FSL, 1145' FEL	8. Farm or Lease Name Howell D	
Latitude 36° 51.0868'N, Longitude 107° 42.6525'W	9. Well Number 352S	
10. Field, Pool, Wildcat Basin Fruitland Coal	11. Sec., Twn, Rge, Mer. (NMPM) Sec 31, T-31-N, R-8-W API # 30-045-31986	
12. Distance in Miles from Nearest Town 31.8 Miles to PO in Blanco NM	12. County San Juan	13. State NM
14. Distance from Proposed Location to Nearest Property or Lease Line 1145'	15. Acres Assigned to Well 320 E/R	
16. Acres in Lease	17. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 20'	
18. Proposed Depth 3246	19. Rotary or Cable Tools Rotary	
20. Elevations (DF, FT, GR, Etc.) 6336 GR	21. Approx. Date Work will Start	
22. Proposed Casing and Cementing Program See Operations Plan attached		
23. Authorized by: <u>Frances Bend</u> Regulatory/Compliance Assistant	10-22-03 Date	

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY FFO TITLE _____ DATE 1-9-04

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.

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

NMOC

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

DISTRICT II
811 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Artec, 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- 31986		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 7124	*Property Name HOWELL D		*Well Number 352S
*OGRD No. 14538	*Operator Name BURLINGTON RESOURCES OIL AND GAS, INC.		*Elevation 6336'

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
1	31	31-N	8-W		1535'	SOUTH	1145'	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
¹³ Dedicated Acres E/320			¹⁴ Joint or Infill		¹⁵ Consolidation Code		¹⁶ 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**

18

LOT 1			FD 3 1/4" BLM B.C. 1954
LOT 2		LAT: 36°51.0868' N. (NAD 27) LONG: 107°42.6525' W.	
LOT 3	USA SF-078387 31	N 01-32-56 W 5291.80' (M)	
LOT 4	S 89-49 W 2775.30' (R)	1111' 243' 212' 1535'	FD 3 1/4" BLM B.C. 1953

MIN COIN LOT 4 070 PARTING ON LINE
 E - AOA CLOZ
 RECORD

17 OPERATOR CERTIFICATION

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

Frances Bond

Signature

Frances Bond

Printed Name

Regulatory Assistant

Title

10-22-03

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

Signature and Seal of Professional Surveyor:

14827

REGISTERED PROFESSIONAL SURVEYOR

D.A. JOHNSON

14827

Certificate Number

RECEIVED

OPERATIONS PLAN

Well Name: Howell D 352S
Location: 1535' FSL, 1145' FEL Section 31, T-31-N, R-8-W
Latitude 36° 51.0868'N, Longitude 107° 42.6525'W
San Juan County, NM
Formation: Basin Fruitland Coal
Elevation: 6336' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	1913'	
Ojo Alamo	1913'	2043'	aquifer
Kirtland	2043'	2878'	
Fruitland	2878'	2923'	
Intermediate TD	2873'		
Fruitland Coal	2923'	3161'	gas
B/Basal Coal	3161'	3163'	gas
Pictured Cliffs	3163'		
Total Depth	3246'		

Logging Program: none
Mudlog: from 7" to 3246'
Coring Program: none

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud	8.4-9.0	40-50	no control
120-2873'	Non-dispersed	8.4-9.0	30-60	no control
2873-3246'	Air/Mist			

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

Hole Size	Depth Interval	Csg. Size	Wt.	Grade
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 2873'	7"	20.0#	J-55
6 1/4"	2873' - 3246'	open hole		

Alternate Casing Program (as listed, the equivalent, or better):

Hole Size	Depth Interval	Csg. Size	Wt.	Grade
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 2873'	7"	20.0#	J-55
6 1/4"	2833' - 3246'	5 1/2"	15.5#	J-55

Tubing Program:

0' - 3246'	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 float collar. Standard centralizers run every other joint above shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2043'. 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 23 sx Type I, II cement with 20% flyash, mixed at 14.5 ppg, 1.61 cu.ft. per sack yield (37 cu.ft. of slurry, bring cement to surface) or equivalent. Wait on cement for 24 hours for pre-set holes or 8 hrs for conventionally set holes before pressure testing or drilling out from under surface. Test BOP and casing to 600 psi for 30 minutes.

7" intermediate casing - lead w/245 sacks Premium Lite with 3% calcium chloride, 5 pps LCM-1, and 1/4#/sack flocele, 0.4% FL-52, & 0.4% SMS. Tail with 90 sacks Type III cmt with 1% calcium chloride, 1/4#/sack flocele and 0.2% FL-52 (648 cu.ft., 50% excess to circulate to surface).

5 1/2" liner - will not be cemented if run.

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 1500 psi for 30 minutes; all pipe rams and casing to 1500 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 less than 500 psi.
- * This gas is dedicated.
- * The East half of Section 31 is dedicated to the Fruitland Coal.

Date: October 30, 2003 Drilling Engineer: 