

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 NMSF-078387
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 1500' FNL, 1625' FWL Latitude 36° 52.3238, Longitude 107° 42.0780	8. Farm or Lease Name Howell D
	9. Well Number #351S
14. Distance in Miles from Nearest Town 29.2 miles from Blanco	10. Field, Pool, Wildcat Basin Fruitland Coal
	11. Sec., Twn, Rge, Mer. (NMPM) Sec. 29, T31N, R8W API # 30-045-31951
15. Distance from Proposed Location to Nearest Property or Lease Line 1500'	12. County San Juan
16. Acres in Lease	13. State NM
17. Acres Assigned to Well 320 W/2	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 21'	
19. Proposed Depth 3450'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6523' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Tammy Winkert</u> Regulatory Specialist	<u>10-2-03</u> Date

PERMIT NO. _____

APPROVAL DATE _____

APPROVED BY F.F.O.

TITLE _____

DATE 1-8-04

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.

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

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

NMOC

DISTRICT II
811 South First, Artesia, N.M. 88210DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-31951		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 7124	*Property Name HOWELL D		*Well Number 351S
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL AND GAS, INC.		*Elevation 6523'

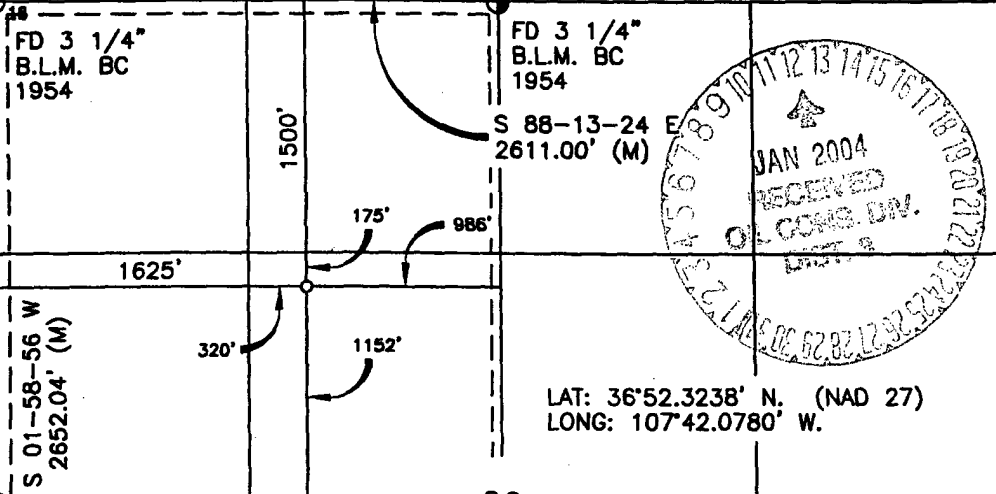
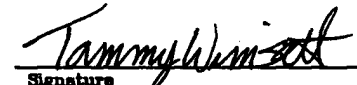

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	29	31-N	8-W		1500'	NORTH	1625'	WEST	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
Dedicated Acres W/320			Joint or Infill		Consolidation Code		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

 <p>FD 3 1/4" B.L.M. BC 1954</p> <p>1500'</p> <p>1625'</p> <p>320'</p> <p>1152'</p> <p>175'</p> <p>986'</p> <p>S 88-13-24 E 2611.00' (M)</p> <p>JAN 2004 RECEIVED OIL CON. DIV. DIST. 2</p> <p>LAT: 36°52.3238' N. (NAD 27) LONG: 107°42.0780' W.</p> <p>29</p> <p>USA SF-078387</p>		<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p> Signature Tammy Wimsatt Printed Name Regulatory Specialist Title 10-2-03 Date</p>
<p>18 SURVEYOR CERTIFICATION</p> <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> Date of Survey NEW MEXICO Signature and Seal of Professional Surveyor 14827 REGISTERED PROFESSIONAL SURVEYOR</p> <p>Certificate Number</p>		

OPERATIONS PLAN

Well Name: Howell D #351S
Location: 1500' FNL, 1625' FWL, Section 29, T-31-N, R-8-W
Latitude 36° 52.54, Longitude 107° 42.13
San Juan County, NM
Formation: Basin Fruitland Coal
Elevation: 6523' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	2155'	
Ojo Alamo	2155'	2255'	aquifer
Kirtland	2255'	3050'	gas
Fruitland	3050'	3135'	gas
Intermediate casing	3085'		
Top of Coal	3135'	3365'	
Base of Coal	3365'		
Pictured Cliffs	3370'		
Total Depth	3450'		

Logging Program:

Open hole - GR/RHOB from TD to 3085'
Mud log - TD to 3085'

Coring Program: none

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud	8.4-9.0	40-50	no control
120-3085'	Non-dispersed	8.4-9.0	30-60	no control
3085-3450'	Air/Mist			no control

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' - 3085'	7"	20.0#	J-55
6 1/4"	3085' - 3450'	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' - 3085'	7"	20.0#	J-55
6 1/4"	3045' - 3450'	5 1/2"	15.5#	J-55

Tubing Program:

0' - 3450' 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 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 @ 2255'. 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" 3000 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/268 sacks Premium Lite cement with 3% calcium chloride, 0.25 pps Celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. Tail with 90 sacks Type III cement with 1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss (695 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 BOP and casing to 600 psi/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 BOP and casing to 1500 psi for 30 minutes; all pipe rams and casing to 1500 psi for 30 minutes each.

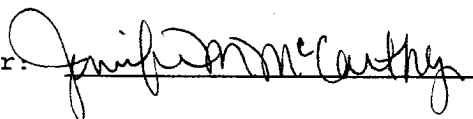
From surface to TD - choke manifold (Reference Figure #3).

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 500 psi.
- This gas is dedicated.
- The west half of Section 29 is dedicated to this well.

Drilling Engineer:



Date:

