# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK RECEIVED 1a. Type of Work Lease Number NMSF-078596070 FARMINGTON NM DRILL Unit Reporting Number 1b. Type of Well If Indian, All. or Tribe GAS **Unit Agreement Name** 2. Operator BURLINGTON RESOURCES Oil & Gas Company, LP 3. Address & Phone No. of Operator 8. Farm or Lease Name PO Box 4289, Farmington, NM 87499 Howell C 9. Well Number (505) 326-9700 200S 10. Field, Pool, Wildcat **Location of Well** Basin FC / AZESC PC Unit O (SWSE), 770' FSL & 1590' FEL, Blake 11. Sec., Twn, Rge, Mer. (NMPM) Latitude 36° 44.9372'N Sec. 1, T29N, R08W Longitude 1070 37.4057'W API # 30-045- 33666 **Distance in Miles from Nearest Town** 12. County 13. State 14. San Juan NM 15. Distance from Proposed Location to Nearest Property or Lease Line 770' Acres in Lease 16. 17. Acres Assigned to Well FC- E/2 - 321.05 acres 321.05 PC - SE/4 160.0 acres Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 18. Twinned w/Howell C #14 19. **Proposed Depth** 20. Rotary or Cable Tools 3170' Rotary 21. Elevations (DF, FT, GR, Etc.) 22. Approx. Date Work will Start 6205' GL 23. **Proposed Casing and Cementing Program** See Operations Plan attached 24. **Authorized by:** Date APPROVAL DATE PERMIT NO. APPROVED BY TITLE **Archaeological Report attached** Threatened and Endangered Species Report attached NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

SHILL TO COMPLIANCE WITH ATTACHED \*GENERAL REGUIREMENTS\*.

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.

Not an HPA FC Well

biological review notes and to 49 JEEP 3165/3 and applied plans and to 48 JEEP 3186/4

MMOCDE

DISTRICT 1 1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102 Revised October 12, 2005

DISTRICT II 1301 W. Grand Ave., Artesia, N.M. 88210

Submit to Appropriate District Office State Lease - 4 Copies

DISTRICT III 1000 Rio Brazos Rd., Aztec, N.M. 87410

Fee Lease - 3 Copies

1220 South St. Francis Dr., Santa Fe, NM 87505

2006 MHR 24 EM 8 48

☐ AMENDED REPORT

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14538	BURLINGTON RESOURCES OIL & GAS COMPANY LP 6205							·_				
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USA SF-078596

770

LAT: 36.74896° N

FD 3 1/4" BC

1955 BLM

LONG:107.62404° W (NAD 83) LAT: 36'44.9372' N. (NAD 27) LONG:107'37.4057' W. (NAD 27)

S 87'54'00" W 5113.25' (C)

(NAD 83)

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CALC'D COR.

BY SGL. PROP.

1590'

1 00'49'28" 2634.66' (C correct to the best of my belief. **FEBRUA** PROMESSIONS

Certificate Number

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

Office District I	State of New Mexico		Form C-103
	Energy, Minerals and Natural Reso	urces	May 27, 2004
1625 N. French Dr., Hobbs, NM 88240 District II		WELL API NO. 30-045	331.1de
1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERVATION DIVIS		2004
<u>District III</u>	1220 South St. Francis Dr.	STATE	FEE
1000 Rio Brazos Rd., Aztec, NM 87410 District IV	Santa Fe, NM 87505	6. State Oil & Gas Lease No.	
1220 S. St. Francis Dr., Santa Fe, NM 8750	95	NMSF-078	596
	ES AND REPORTS ON WELLS	7. Lease Name or Unit Agreem	ent Name
DIFFERENT RESERVOIR. USE "APPLICATIO	TO DRILL OR TO DEEPEN OR PLUG BACK TO A N FOR PERMIT" (FORM C-101) FOR SUCH	Howell (	
PROPOSALS.)			
1. Type of Well: Oil Well Gas Well X	Other	8. Well Number 200S	
2. Name of Operator	Other	9. OGRID Number	
BURLINGTON RESO	URCES OIL & GAS COMPANY LP	14538	
3. Address of Operator	EET, FARMINGTON, NM 87402	10. Pool name or Wildcat  Basin Fruitland Coal / Azi	tec Dictured Cliffs
4. Well Location	SE1, PARWINGTON, NW 87402	Basiii Fluitianu Coai / AZ	iec Fictured Chris
	feet from the South line		East line
Section 1	Township 29N Rng Elevation (Show whether DR, RKB, RT, GR, et	8W NMPM County	San Juan
	6205' GL		
Pit or Below-grade Tank Application	or Closure		7200
Pit type New Drill Depth to Groundwa	<del></del>	<del></del>	urface water <1000
Pit Liner Thickness: 12	mil Below-Grade Tank: Volume	bbls; Construction Material	
	Appropriate Box to Indicate Nature	<del>-</del>	
NOTICE OF IN	i	SUBSEQUENT REPOR	
PERFORM REMEDIAL WORK TEMPORARILY ABANDON		the state of the s	TERING CASING AND A
PULL OR ALTER CASING	lead i	SING/CEMENT JOB	
OTHER: New	Drill X OT	HER:	
	d operations. (Clearly state all pertinent detail		
of starting any proposed work). or recompletion.	. SEE RULE 1103. For Multiple Completions	s: Attach wellbore diagram of proposed of	completion
or recompletion.			
New Drill, Lined:			
	nstruct a new drilling pit and an associated yer	nt/flare pit. Based on Burlington's interp	retation of the
Burlington Resources proposes to con	nstruct a new drilling pit and an associated ver e new drilling pit will be a lined pit as detailed		
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## OPERATIONS PLAN

Well Name:

Howell C #2005

Location:

Unit O (SWSE), 770' FSL & 1590' FEL, Sec. 1, T29N, R8W,

San Juan County, New Mexico

Latitude 36° 44.9372'N / Longitude 107° 37.4057' W

Formation:

Basin Fruitland Coal / Aztec Pictured Cliffs

Elevation:

6205' GR

Formation:	Тор	Bottom	Contents
Ojo Alamo	2037'	2113'	aquifer
Kirtland	2113'	2727'	gas
T/Fruitland	2727'		gas
Pictured Cliffs	2970'		_
Total Depth	3170'		

Logging Program: None

## Mud Program:

<u>Interval</u>	Type	<u>Weight</u>	Vis. Fluid Loss
0- 120'	Spud/Air/Air Mist	8.4-8.9	40-50 no control
120-3170'	Non-dispersed	8.4-9.5	30-60 no control

## Casing Program:

Hole Size	Depth Interval	Csq.Size	<u>W†.</u>	<u>Grade</u>
8 3 "	0 - 120'	7"	20.0#	J-55
6 1 "	0 - 3170'	4 1/2"	10.5#	J/K-55

## Tubing Program:

0 - 31/0	2 3/8"	4.7#	J-55

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

4 1/2" production casing - float shoe and float collar on bottom. Centralizers run every third joint above shoe to the base of the Ojo Alamo @ 2113'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2113'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment:  $7" \times 4 \frac{1}{2}" \times 2 \frac{3}{8}" \times 11" 2000$  psi xmas tree assembly.

Page 2 Howell C #2005

Cementing:

7" surface casing Pre-Set Drilled - Cement with Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.28 cu ft per sack yield. (Bring cement to surface). Wait on cement for 24 hours for pre-set holes before pressure testing or drilling out from under surface.

7" surface casing - Cement with 42 sx Type III cement with 0.25 pps Celloflake, 3% CaCl. (54 cu ft of slurry @ 1.28 yield). 200% excess, bring cement to surface. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

WOC until cement establishes 250 psi compressive strength prior to NU of BOPE.

4 1/2" production casing - Cement with 171 sx (363 cu ft of slurry @ 2.13 yield) Premium Lite with 3% calcium chloride, 5 pps LCM-1, and 1/4#/sack celloflake, 0.4% FL-52, & 0.4% SMS. Tail with 90 sacks (124 cu ft of slurry @ 1.38 yield) Type III cmt with 1% calcium chloride, 1/4#/sack Celloflake and 0.2% FL-52. Total of 487cf - 50% excess to circulate to surface.

#### BOP and tests:

Surface to TD - 11'' 2000 psi (minimum double gate BOP stack (Reference Figure #1 and #2). Prior to drilling out surface casing, test pans to 600 psi/30 min.

Completion - 6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 1500 psi/30 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 and Pictured formations will be completed.
- \* Anticipated pore pressure for the Fruitland Coal is 600 700 psi.
- \* This gas is dedicated.
- \* The east half of the section is dedicated to the FC, and the SE/4 of the section is dedicated to the PC for this well.
- New casing will be utilized.
- \* Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

Drilling Engineer

Date

otione. 7-V10" bore, 2000 pel mb ure double gate BOP to be equit Point to Total Depth. 2,000pel worlting present Figure #3 10-02-7

4-20-01

Figure 42

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