

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL

1b. Type of Well
GAS

2. Operator
BURLINGTON
RESOURCES Oil & Gas Company

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499
(505) 326-9700

4. Location of Well
1245' FSL, 660' FEL
Latitude 36° 49.3047'N, Longitude 107° 44.5722'W

5. Lease Number
NMSF078326C
Unit Reporting Number

6. If Indian, All. or Tribe

7. Unit Agreement Name

8. Farm or Lease Name
Lindsey

9. Well Number
2B

10. Field, Pool, Wildcat
Blanco Mesaverde

11. Sec., Twn, Rge, Mer. (NMPM)
Sec. 11, T-30-N, R-9-W
API # 30-045-31748

12. County
San Juan

13. State
NM

14. Distance in Miles from Nearest Town
5 miles to Navajo Dam Post Office

15. Distance from Proposed Location to Nearest Property or Lease Line
660'

16. Acres in Lease

17. Acres Assigned to Well
320 E/2

18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease
1192'

19. Proposed Depth
5279'

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
5882' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Peary Case
Regulatory/Compliance Supervisor Date 6-19-03

PERMIT NO. _____

APPROVAL DATE _____

APPROVED BY /s/ David J. Mankiewicz

TITLE _____

DATE SEP 25 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.

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
P.O. Drawer DD, Artesia, N.M. 88211-0719

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

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, NM 87504-2088

Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045- 31748	² Pool Code 72319	³ Pool Name 070 Farmington, NM Blanco Mesaverde
⁴ Property Code 7264	⁵ Property Name LINDSEY	⁶ Well Number 2B
⁷ OGRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS INC.	⁹ Elevation 5882

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
P	11	30-N	9-W		1245	SOUTH	660	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
¹² Dedicated Acres E/320		¹³ Joint or Infill		¹⁴ Consolidation Code			¹⁵ 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

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		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief	
		<p><i>Peggy Cole</i> Signature <u>Peggy Cole</u> Printed Name <u>Regulatory Supervisor</u> Title <u>6-19-03</u> Date</p>	
		18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plot 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><u>3</u> Date of Survey <i>DAVID L. JOHNSON</i> Signature and Seal of Professional Surveyor Certificate Number <u>14827</u></p>	

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 Supervisor

Title

Date _____

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.

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

OPERATIONS PLAN

Well Name: Lindsey #2B
Surface Location: 1245' FSL, 660' FEL, Section 11, T-30-N, R-9-W
San Juan County, Colorado
Latitude 36° 49.3047'N, Longitude 107° 44.5722'W
Formation: Blanco Mesaverde
Elevation: 5882' GR

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1374'	aquifer
Ojo Alamo	1374'	1524'	aquifer
Kirtland	1524'	2359'	gas
Fruitland	2359'	2664'	gas
Pictured Cliffs	2664'	2754'	gas
Lewis	2754'	3379'	gas
Intermediate TD	3004'		
Huerfano Bentonite	3379'	3714'	gas
Chacra	3714'	4409'	gas
Massive Cliff House	4409'	4509'	gas
Menefee	4509'	4879'	gas
Point Lookout	4879'	5279'	gas
Total Depth	5279'		

Logging Program:

Cased hole logging - Gamma Ray, Cement bond from surface to TD
Open hole logging - none
Mud Logs/Coring/DST - none

Mud Program:

<u>Interval- MD</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 120'	Spud	8.4-9.0	40-50	no control
120- 3004'	LSND	8.4-9.0	30-60	no control
3004- 5279'	Air/Mist	n/a	n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid control.

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

<u>Hole Size</u>	<u>Measured Depth</u>	<u>Csg Size</u>	<u>Weight</u>	<u>Grade</u>
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3004'	7"	20.0/23.0#	J-55
6 1/4"	2904' - 5279'	4 1/2"	10.5#	J-55

Tubing Program: 0' - 5279' 2 3/8" 4.7# J-55

BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1).
After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

BOP Specifications, Wellhead and Tests (cont'd):Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

Wellhead -

9 5/8" x 7" x 2 3/8" x 2000 psi tree assembly.

General -

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drill crew.
- All BOP tests & drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

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.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -

Lead w/260 sx Premium Lite with 3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. Tail with 90 sx Type III cmt w/1% calcium chloride, 0.25 pps celloflake, 0.2% fluid loss (677 cu.ft. of slurry, 50% excess to circulate to surface). WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL or temp survey will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar at 2059'. First stage: cement w/42 sx Premium Lite w/3% calcium chloride, 0.25 pps floccelle, 5 pps LCM-1, 0.4% FL-52, 0.4% SMS. Tail w/90 sx Type III cmt w/1% calcium chloride, 0.25 pps celloflake, 0.2% fluid loss. Second stage: w/218 sx Premium Lite with 3% calcium chloride, 0.25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. (677 cu.ft. of slurry, 50% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 1524'. Two turbolating centralizers at the base of the Ojo Alamo at 1524'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Liner -

Pump 160 sxs Premium Lite HS FM w/0.25 pps celloflake, 0.3% CD-32, 6.25 pps LCM-1, 1% fluid loss, 6% gel, 7 pps CSE (317 cu.ft., 30% excess to circulate liner). WOC a minimum of 18 hrs prior to completing.

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

Special Drilling Operations (Air/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

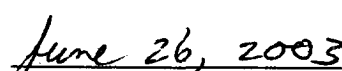
- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Mesa Verde formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	150 psi
Pictured Cliffs	260 psi
Mesa Verde	375 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The east half of Section 11 is dedicated to the Mesa Verde in this well.
- This gas is dedicated.


Drilling Engineer


Date