

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2001 SEP 13 PM 3:57

1a. Type of Work DRILL	5. Lease Number SF-078604 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator BURLINGTON RESOURCES 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 Scott 9. Well Number 4B	
4. Location of Well 1575' FNL, 1945' FEL Latitude 36° 54.1'N, Longitude 107° 54.2'W	10. Field, Pool, Wildcat Blanco Mesaverde/Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 17, T-31-N, R-10-W API # 30-045-30831	
14. Distance in Miles from Nearest Town 10 miles from P.O. in Aztec, NM	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1575'	17. Acres Assigned to Well 320 E/2 324.28	
16. Acres in Lease	18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 1057'	
19. Proposed Depth 7360' 7470'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6015' GR	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached	UNITING OPERATIONS ADVISORY ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"	
24. Authorized by: <u>[Signature]</u> Regulatory/Compliance Supervisor	Date <u>8-14-01</u>	

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

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.

18-0000

DISTRICT I
1625 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

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

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

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-30831	² Pool Code 72319/71599	³ Pool Name Blanco Mesaverde/Basin Dakota
⁴ Property Code 7493	⁵ Property Name SCOTT	⁶ Well Number 4B
⁷ OGRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL AND GAS, INC.	⁹ Elevation 6015'

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
G	17	31-N	10-W		1575'	NORTH	1945'	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 DK 320 E/2 321.28 MV 320 E/2 321.28					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

16	FD 3 1/2" B.L.M. BC 1968	LOT 2	S 89-43-04 W 2625.72' (M)	FD 3 1/2" B.L.M. BC 1968
LOT 3		1575'		LOT 1
LOT 4	LAT: 36°54.1' N. LONG: 107°54.2' W.	681'	632'	1945'
LOT 5		1052'	LOT 6	LOT 7
			SF-078604	S 00-13-32 W 2626.60' (M)
LOT 10		LOT 9		LOT 8
LOT 11				S 01-36-18 W 2647.74' (M)
		MARCOTTE, THOMAS R. ET UX		FD 3 1/2" B.L.M. BC 1968

17 OPERATOR CERTIFICATION

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

Peggy Cole
Signature
Peggy Cole
Printed Name
Regulatory Supervisor
Title
8-14-01
Date

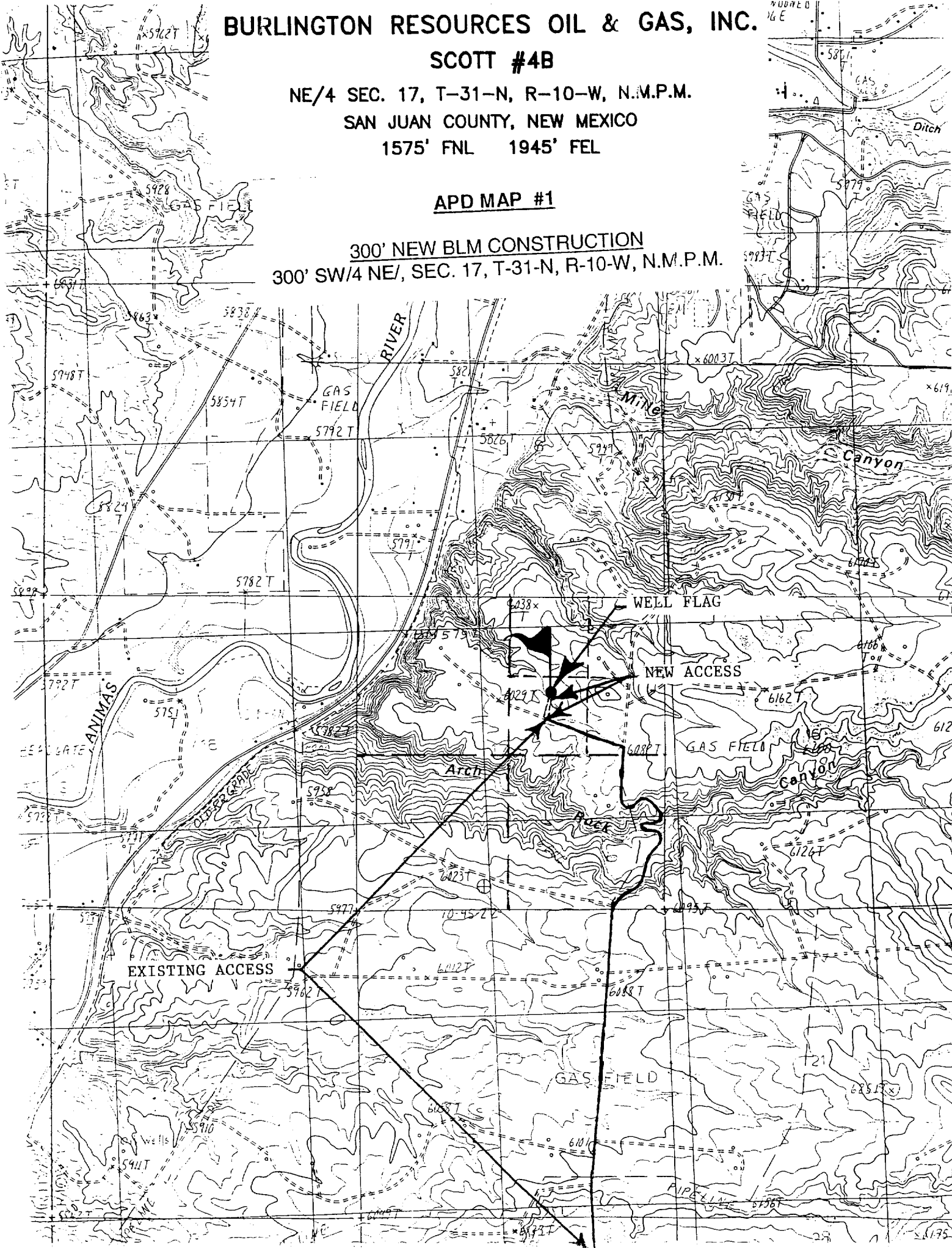
18 SURVEYOR CERTIFICATION

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.

7-30-A-RUSH
Date of Survey
Signature and Seal of Professional Surveyor
8894
Certificate Number

A topographic map showing a canyon area. The map features contour lines representing elevation. A dashed line runs horizontally across the middle of the map, possibly indicating a path or a boundary. The word "Canyon" is written at the top right. The map is oriented with North at the top.

A topographic map showing a canyon area. The word "Canyon" is written in the upper left. A dashed line, likely a road or trail, is labeled with the number "61247". The map features contour lines indicating elevation and a grid system.



OPERATIONS PLAN

Well Name: Scott #4B
Location: 1575' FNL, 1945' FEL, Sec. 17, T-31-N, R-10-W
San Juan County, NM
Latitude 36° 54.1'N, Longitude 107° 54.2'W
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 6015'GR

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1317'	
Ojo Alamo	1317'	1362'	aquifer
Kirtland	1362'	2187'	gas
Fruitland	2187'	2777'	gas
Pictured Cliffs	2777'	2912'	gas
Lewis	2912'	3487'	gas
Intermediate TD	3012'		
Mesa Verde	3487'	3867'	gas
Chacra	3867'	4497'	gas
Massive Cliff House	4497'	4587'	gas
Menefee	4587'	5012'	gas
Massive Point Lookout	5012'	5327'	gas
Mancos	5327'	6310'	gas
Gallup	6310'	7020'	gas
Greenhorn	7020'	7077'	gas
Graneros	7077'	7133'	gas
Dakota	7133'		gas
TD	7470'		

Logging Program:

Open hole - Platform express, Temp, Array Induction, Neutron-Density, CMR - TD to minimum ops depth
Cased hole - CBL-CCL-GR - TD to intermediate TD
Mudlog from 6500' to TD
Cores - none

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-9.0	40-50	no control
200- 3012'	LSND	8.4-9.0	30-60	no control
3012- 7083'	Air/N2	n/a	n/a	n/a
7083- 7470'	LSND	8.4-9.0	30-60	no control

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>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 200'	9 5/8"	32.3#	WC-50
8 3/4"	0' - 3012'	7"	20.0#	J-55
6 1/4"	2912' - 7470'	4 1/2"	10.5#	J-55

Tubing Program:

0' - 7470' 2 3/8" 4.7# J-55

BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 3000 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.

Intermediate TD to Total Depth -

11" 3000 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, 3000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

7 1/16" 3000 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 3000 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 drilling crew.
- All BOP tests and 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 159 sx Class "B" cement with 1/4# celloflake/sx and 3% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

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

7" intermediate casing -

Lead w/306 sx 50/50 Class G/TXI lightweight w/2.5% sodium metasilicate, 2% calcium chloride, 10# gilsonite/sx and 1/2# celloflake/sx. Tail w/90 sx 50/50 Class "G" Poz w/2% calcium chloride, 2% gel, 1/4 pps celloflake, 5 pps gilsonite, 0.1% antifoam agent (905 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

See attached alternative intermediate lead slurry.

7" intermediate casing alternative two stage: Stage collar at 2087'. First stage: cement with 217 sx 50/50 Class "G" Poz w/2% calcium chloride, 2% gel, 1/4 pps celloflake, 5 pps gilsonite, 0.1% antifoam agent. Second stage: 243 sx 50/50 Class G/TXI lightweight w/2.5% sodium metasilicate, 2% calcium chloride, 10# gilsonite/sx and 1/2# celloflake/sx (905 cu.ft., 100% 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 1362'. Two turbolating centralizers at the base of the Ojo Alamo at 1362'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Casing -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 178 sx 9.5 ppg Litecrete blend w/0.11% dispersant, 0.5% fluid loss additive. Tail w/176 sx 50/50 Class "G" Poz with 5% gel, 0.25# celloflake/sx, 5# gilsonite/sx, 0.1% retardant and 0.25% fluid loss additive, 0.15% dispersant, 0.1% antifoam agent (701 cu.ft.), 50% excess to cement 4 1/2" x 7" overlap). 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 float shoe on bottom with float collar spaced on top of float shoe.

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. In its place, a long string of 4 1/2" casing will be run and cemented with a minimum of 100' of cement overlap between the 4 1/2" x 7" casing strings. After completion of the well, a 4 1/2" retrievable bridge plug will be set below the top of cement in the 4 1/2" x 7" overlap. The 4 1/2" casing will then be backed off above the top of cement in the 4 1/2" x 7" overlap and laid down. The 4 1/2" bridge plug will then be retrieved and the production tubing will be run to produce the well.

- 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 (Gas/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.
- Deduster equipment will be utilized.
- 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 Dakota and Mesa Verde formations will be completed and commingled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
Dakota	2500 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered.
- The east half of Section 17 is dedicated to the Mesa Verde and Dakota in this well.
- This gas is dedicated.

Brennan D. Shurt
Drilling Engineer

8/22/01
Date