

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number NMSF-078423 Unit Reporting Number MV-8910016500 DK-891001650A
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator BURLINGTON RESOURCES Oil & Gas Company	7. Unit Agreement Name San Juan 29-7 Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 29-7 Unit 9. Well Number 140N
4. Location of Well 1980' FNL, 1910' FWL <i>SE NW</i> Latitude 36° 44.5, Longitude 107° 35.8	10. Field, Pool, Wildcat Blanco MV/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) <i>F</i> Sec. 8, T-29-N, R-7-W API # 30-039- <i>27036</i>
14. Distance in Miles from Nearest Town 15.5 miles from Blanco	12. County Rio Arriba 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1910'	17. Acres Assigned to Well 320 W/2
16. Acres in Lease <small>DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".</small>	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 1820'	
19. Proposed Depth 7475' <small>This section is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4</small>	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6226' GR	22. Approx. Date Work will Start <i>5-29-02</i>
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <i>[Signature]</i> Regulatory/Compliance Supervisor	Date

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY /s/ Charlie Beecham TITLE ACTING DATE AUG 26

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.

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

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

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

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

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-27036	² Pool Code 72319/71599	³ Pool Name Blanco Mesaverde/Basin Dakota
⁴ Property Code 7465	⁵ Property Name SAN JUAN 29-7 UNIT	⁶ Well Number 140-N
⁷ OGED No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL AND GAS, INC.	⁹ Elevation 6226'

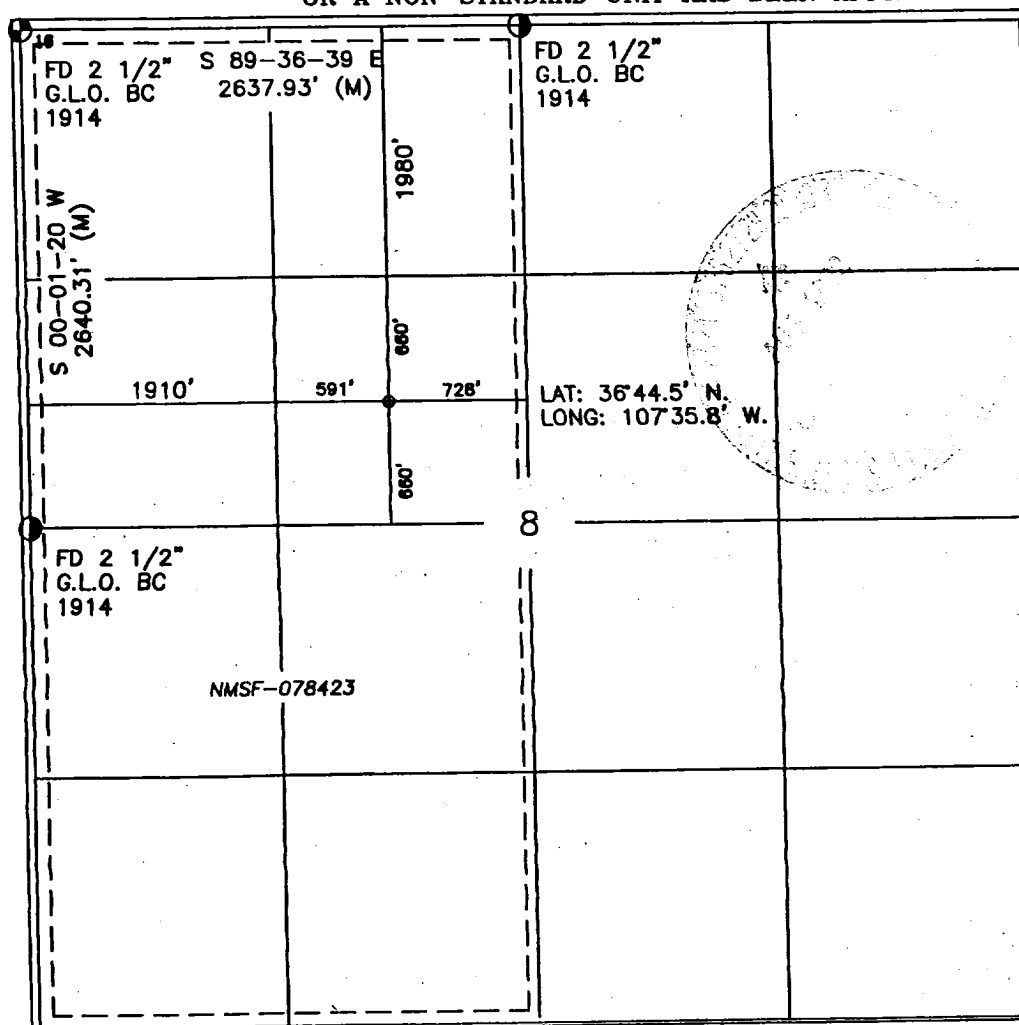
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	8	29-N	7-W		1980'	NORTH	1910'	WEST	RIO ARriba

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 MV - W/320 DK - W/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



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
Date 5-29-02

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 knowledge and belief

11-9
Date of Survey
Signature and Seal of Professional Surveyor
8894
Certificate Number

OPERATIONS PLAN

Well Name: San Juan 29-7 Unit #140N
1980' FNL, 1910' FWL, Section 8, T-29-N, R-7-W
Rio Arriba County, New Mexico
Latitude 36° 44.5, Longitude 107° 35.8
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 6226' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1998'	
Ojo Alamo	1998'	2188'	aquifer
Kirtland	2188'	2609'	gas
Fruitland	2609'	3023'	
Pictured Cliffs	3023'	3178'	gas
Lewis	3178'	3718'	gas
Intermediate TD	3278'		
Huerfanito Bentonite	3718'	4008'	gas
Chacra	4008'	4748'	gas
Cliff House	4748'	4838'	
Menefee	4838'	5163'	gas
Point Lookout	5163'	5588'	gas
Mancos	5588'	6443'	gas
Gallup	6443'	7163'	gas
Greenhorn	7163'	7223'	gas
Graneros	7223'	7277'	gas
Dakota	7277'		gas
TD	7475'		

Logging Program:

Mud logs - none
Cased hole - CBL-CCL-GR - TD to surface
Open hole - AIR, CNL-CDL - Intermediate casing to 2100'
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- 3278'	LSND	8.4-9.0	30-60	no control
3278- 7475'	Air/N2	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>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' - 3278'	7"	20.0#	J-55
6 1/4"	3178' - 7475'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 7475'

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 #2).

Completion Operations -

7 1/16" 3000 psi double gate BOP stack (Reference Figure #3). 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 134 sx Type III cement with 0.25 pps Celloflake and 2% 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/289 sx Premium Lite cement with 3% calcium chloride, 0.25 pps Flocele, 5 pps LCM-1, 0.4% fluid loss, 0.4% SMS. Tail w/90 sx Type III cmt w/1% calcium chloride, 0.25 pps Flocele, 0.2% fluid loss (739 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 a temperature survey 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 2509'. First stage: lead with 23 sx Premium Lite cement with 3% calcium chloride, 0.25 pps Flocele, 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 Flocele, 0.2% fluid loss. Second stage: 266 sx Premium Lite cmt with 3% calcium chloride, 0.25 pps Flocele, 5 ps LCM-1, 0.4% fluid loss, 0.4% SMS (739 cu.ft., 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 2188'. Two turbolating centralizers at the base of the Ojo Alamo at 2188'. 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 -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 312 sx Premium Lite cmt w/0.25 pps Celloflake, 0.3% CD-32, 6.25 pps LCM-1, 1% fluid loss (617 cu.ft.), 40% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

Cement float shoe on bottom with float collar spaced on top of float shoe.

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

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 Mesaverde and Dakota 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 west half of Section 8 is dedicated to the Mesaverde and the Dakota in this well.
- This gas is dedicated.

Brennan D. Short
Drilling Engineer

5/29/2002
Date