

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 SF-078146 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 Culpepper Martin 9. Well Number 7C
4. Location of Well 1185' FNL, 815' FEL Latitude 36° 57.7, Longitude 108° 05.7	10. Field, Pool, Wildcat Blanco Mesaverde/ Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) A Sec. 28, T-32-N, R-12-W API # 30-045-30118
14. Distance in Miles from Nearest Town 15 miles from Aztec	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 815'	
16. Acres in Lease	17. Acres Assigned to Well 320 E/2
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 900'	
19. Proposed Depth 7390'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6124' GL	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"
24. Authorized by: <u>Penny Cole</u> Regulatory/Compliance Administrator	<u>1-18-00</u> Date

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY /s/ Jim Lovato TITLE _____ DATE AUG 18 2000

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.

NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd., Aztec, NM 87410

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

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-30118		*Pool Code 72319/71599	*Pool Name Blanco Mesaverde/Basin Dakota
*Property Code 69350	*Property Name CULPEPPER MARTIN		*Well Number 7C
*OGRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		*Elevation 6124'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
A	28	32N	12W		1185	NORTH	815	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County

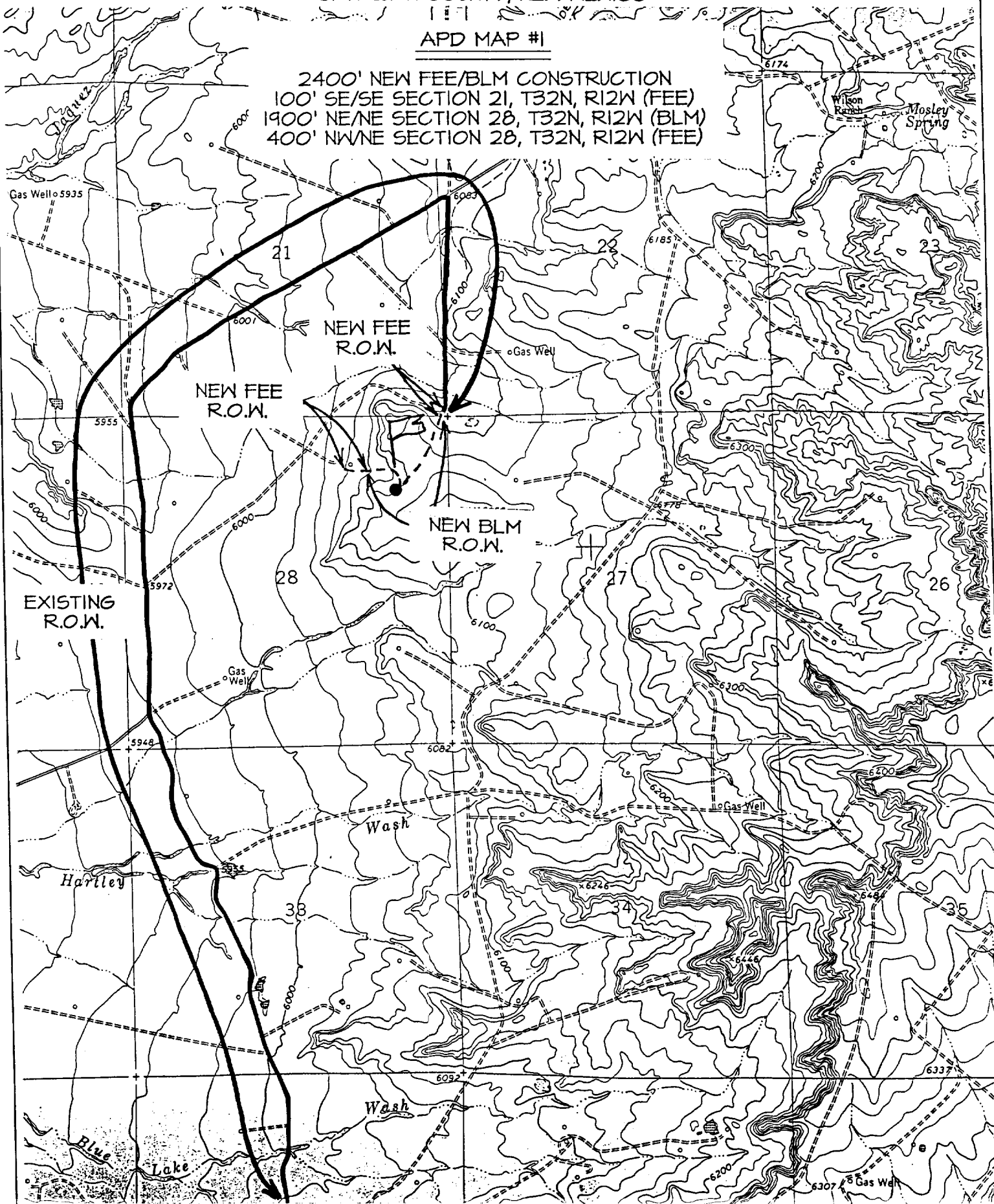
¹² Dedicated Acres MV/DK;E/320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div><p>¹⁶</p><p>FEE</p><p>SF-078146</p></div>	<div><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 Peggy Cole Printed Name Regulatory Administrator Title 1-18-00 Date</p></div>
	<div><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>OCTOBER 7, 1999 Date of Survey</p><p> Signature and Seal NEALE C. EDWARDS NEW MEXICO 6857 Professional Surveyor</p></div>

1185' FNL & 815' FEL, SECTION 28, T32N, R12W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

2400' NEW FEE/BLM CONSTRUCTION
100' SE/SE SECTION 21, T32N, R12W (FEE)
1900' NE/NE SECTION 28, T32N, R12W (BLM)
400' NW/NE SECTION 28, T32N, R12W (FEE)



OPERATIONS PLAN

Well Name: Culpepper Martin #7C
Location: 1185' FNL, 815' FEL, Sec 28, T-32-N, R-12-W
San Juan County, NM
Latitude 36° 57.7, Longitude 108° 05.7
Formation: Blanco Mesa Verde/ Basin Dakota
Elevation: 6124' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	904'	
Ojo Alamo	904'	924'	aquifer
Kirtland	924'	1851'	gas
Fruitland	1851'	2538'	gas
Pictured Cliffs	2538'	2718'	gas
Lewis	2718'	3241'	gas
Intermediate TD	2818'		
Mesa Verde	3241'	3711'	gas
Chacra	3711'	4176'	gas
Massive Cliff House	4176'	4437'	gas
Menefee	4437'	4874'	gas
Massive Point Lookout	4874'	5311'	gas
Mancos	5311'	6295'	gas
Gallup	6295'	7036'	gas
Greenhorn	7036'	7076'	gas
Graneros	7076'	7126'	gas
Dakota	7126'		gas
TD (4 1/2" liner)	7390'		

Logging Program:

Cased hole - IEL-GR, CNL-CDL, CBL-CCL-GR, Temp. - TD to surface

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- 2818'	LSND	8.4-9.0	30-60	no control
2818- 7390'	Gas	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>Csq. Size</u>	<u>Wt.</u>	<u>Grade</u>
17 1/2"	0' - 200'	13 3/8"	48#	H-40
10 5/8"	0' - 2818'	8 5/8"	32#	J-55
7 7/8"	2718' - 7390' ✓	5 1/2"	15.5#	J-55

Tubing Program:

0' - 7390'	1 1/2"	2.90# EUE
0' - 5311'	1 1/2"	2.75# IJ

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.

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 -

13 3/8" x 8 5/8" x 1 1/2" x 1 1/2" x 5000 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:

13 3/8" surface casing - cement with 353 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (417 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.

8 5/8" intermediate casing -

Lead w/354 sx Class "B" w/3% sodium metasilicate, 5# gilsonite/sx and 1/4# flocele/sx. Tail w/90 sx Class "B" w/2% calcium chloride, 2% sodium metasilicate, 0.25 pps flocele, 5 pps gilsonite (1184 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.

8 5/8" intermediate casing alternative two stage: Stage collar at 1751'. First stage: cement with 261 sx Class "B" cmt with 5 pps gilsonite, 1/4 pps flocele, 2% metasilicate, 2% calcium chloride. Second stage: 253 sx Class "B" with 3% sodium metasilicate, 1/4 pps flocele, 5 pps Gilsonite (1184 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 924'. Two turbolating centralizers at the base of the Ojo Alamo at 924'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

5 1/2" Production Liner --

Cement to cover minimum of 100' of 5 1/2" x 8 5/8" overlap. Lead with 879 sx 50/50 Class "H" Poz with 2% gel, 0.25 flocele/sx, 5# gilsonite/sx, 0.2% retardant and 0.4% fluid loss additive (1134 cu.ft.), 50% excess to cement 5 1/2" x 8 5/8" overlap). WOC a minimum of 18 hrs prior to completing.

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

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. In its place, a long string of 5 1/2" casing will be run and cemented with a minimum of 100' of cement overlap between the 5 1/2" x 8 5/8" casing strings. After completion of the well, a 5 1/2" retrievable bridge plug will be set below the top of cement in the 5 1/2" x 8 5/8" overlap. The 5 1/2" casing will then be backed off above the top of cement in the 5 1/2" x 8 5/8" overlap and laid down. The 5 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.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

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.