

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 NM-020495 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 Angel Peak 9. Well Number 501
4. Location of Well 1310' FSL, 1780' FWL Latitude 36° 36.0'N, Longitude 107° 58.5'W	10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) N Sec. 2, T-27-N, R-11-W API # 30-045-30815
14. Distance in Miles from Nearest Town 11 miles from Bloomfield	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1310'	
16. Acres in Lease	17. Acres Assigned to Well 320 S/2
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 600'	
19. Proposed Depth 2103'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6022' GR	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>[Signature]</u> Regulatory/Compliance Supervisor	Date <u>8-7-01</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.

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
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 30-045-30815		*Pool Code 71629	*Pool Name Basin Fruitland Coal
*Property Code 6787	*Property Name ANGEL PEAK		*Well Number 501
*GRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP		*Elevation 6022'

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
N	2	27N	11W		1310	SOUTH	1780	WEST	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 320 S/2		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

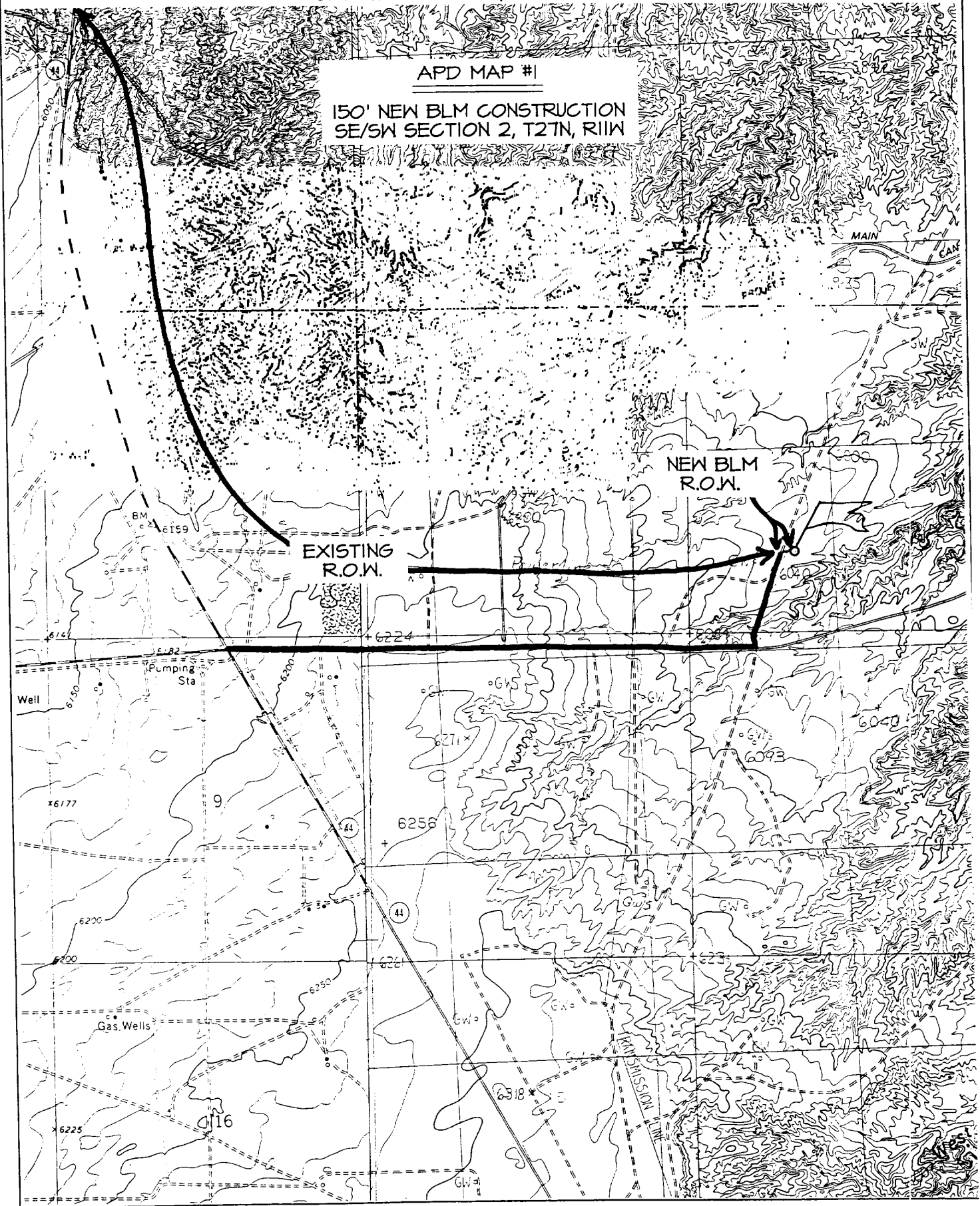
¹⁶ LOT 4 LOT 3 LOT 2 LOT 1 2 USA NM-020495 LAT: 36°36.0'N LONG: 107°58.5'W 1780' 1310' 1330' 2640.00' 5300.46'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Signature Peggy Cole Printed Name Regulatory Supervisor Title 8-7-01 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. JULY 14, 2001 Date of Survey Signature and Seal of Professional Surveyor NEALE C. EDWARDS NEW MEXICO 6857 Certificate Number 6857		

BURLINGTON RESOURCES OIL & GAS COMPANY ANGEL PEAK #501

1310' FSL & 1780' FWL, SECTION 2, T27N, R11W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

APD MAP #1

150' NEW BLM CONSTRUCTION
SE/SW SECTION 2, T27N, R11W



OPERATIONS PLAN

Well Name: Angel Peak #501
Location: 1310' FSL, 1780' FWL Section 2, T-27-N, R-11-W
Latitude 36° 36.0' N, Longitude 107° 58.5' W
San Juan County, NM
Formation: Basin Fruitland Coal
Elevation: 6022' GR

Formation:	Top	Bottom	Contents
Surface	San Jose	773'	
Ojo Alamo	773'	853'	aquifer
Kirtland	853'	1573'	gas
Fruitland	1573'	1857'	gas
Pictured Cliffs	1857'		gas
Total Depth	2103'		

Logging Program: Platform Express from TD to surface.

Mudlog: 2 Man unit from Kirtland to TD.

Coring Program: none

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0 - 120'	Spud	8.4-9.0	40-50	no control
120-2103'	Non-dispersed	8.4-9.5	30-60	no control

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

Hole Size	Depth Interval	Csg. Size	Wt.	Grade
9 7/8"	0' - 120'	7"	20.0#	J-55
6 1/4"	0' - 2103'	4 1/2"	10.5#	J-55

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

4 1/2" production casing - float shoe on bottom. Three centralizers run every other joint above shoe. Seven centralizers run every 3rd joint to the base of the Ojo Alamo @ 853'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 853'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: 7" x 4 1/2" 2000 psi screw on independent wellhead.

Cementing:

7" surface casing - cement with 27 sx Class A, B Portland Type I, II cement (32 cu.ft. of slurry, bring cement to surface through 3/4" line). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

4 1/2" production casing - Lead w/144 sx Premium Lite cement w/3% calcium chloride, 1/4 pps flocele, 5 pps LCM-1, 0.4% FL-52, and 0.4% SMS. Tail w/90 sx Type III cement w/1% calcium chloride, 1/4 pps flocele, and 0.2% FL-52 (431 cu.ft. of slurry, 100% excess to circulate to surface.)

4 1/2" production casing alternative two stage: Stage collar at 1473'. First stage: cement with 93 sx Type III cmt w/1% calcium chloride, 0.25 pps flocele, 0.2% FL-52. Second stage: 142 sx Premium Lite w/3% calcium chloride, 0.25 pps flocele, 5 pps LCM-1, 0.4% FL-52, and 0.4% SMS (431 cu.ft. of slurry, 100% excess to circulate to surface.)

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

BOP and tests:

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

Completion - 7 1/16" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 2000 psi/15 min.

From surface to TD - choke manifold (Reference Figure #3).

Pipe rams will be actuated to 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.

BOP and tests (If a coiled tubing drilling (CTD) rig is utilized.):

Surface to TD: 7-1/16" 2000 psi (minimum) Torus annular BOP stack (Reference Figure #1b). Prior to drilling out surface casing, test annular BOP to 600psi/30 min.

Completion: 7-1/16" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test blind rams and casing to 1500 psi for 30 minutes; all pipe rams and casing to 1500 psi for 30 minutes each. **Same as in original APD operations plan.**

From surface to TD: choke manifold (Reference Figure #3). **Same as in original APD operations plan.**

The annular BOP will be actuated to close on drill pipe (coiled tubing) at least once each day and to close on open hole once each trip to test proper functioning.

Additional information:

- * The Fruitland Coal formation will be completed.
- * Anticipated pore pressure for the Fruitland Coal is 500 psi.
- * This gas is dedicated.
- * The south half of Section 2 is dedicated to the Fruitland Coal.

Brennan D. Shurt
Drilling Engineer

8/7/01
Date