

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 NAV-GO65211 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>BURLINGTON RESOURCES</b> Oil & Gas Company	7. Unit Agreement Name Huerfanito Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Huerfanito Unit 9. Well Number 45R	
4. Location of Well 1140' FSL, 1180' FWL Latitude 36° 33.38, Longitude 107° 44.67	10. Field, Pool, Wildcat So. Blanco Pic. Cliffs 11. Sec., Twn, Rge, Mer. (NMPM) M Sec 24, T-27-N, R-9-W API # 30-045-30480	
14. Distance in Miles from Nearest Town 10 miles to Huerfano	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1140	17. Acres Assigned to Well 160 SW/4	
16. Acres in Lease	18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 700'	
19. Proposed Depth 2400' -	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6159' GR	22. Approx. Date Work will Start 1-15-97	
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>[Signature]</u> Regulatory/Compliance Administrator	Date	

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

NMOCD

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer 00, 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 30-045-30480		Pool Code 72439-	Pool Name So. Blanco Pictured Cliffs
Property Code 7138	Property Name Huerfanito Unit		Well Number 45R
OGRID No. 14538	Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY		Elevation 6159'

10 Surface Location

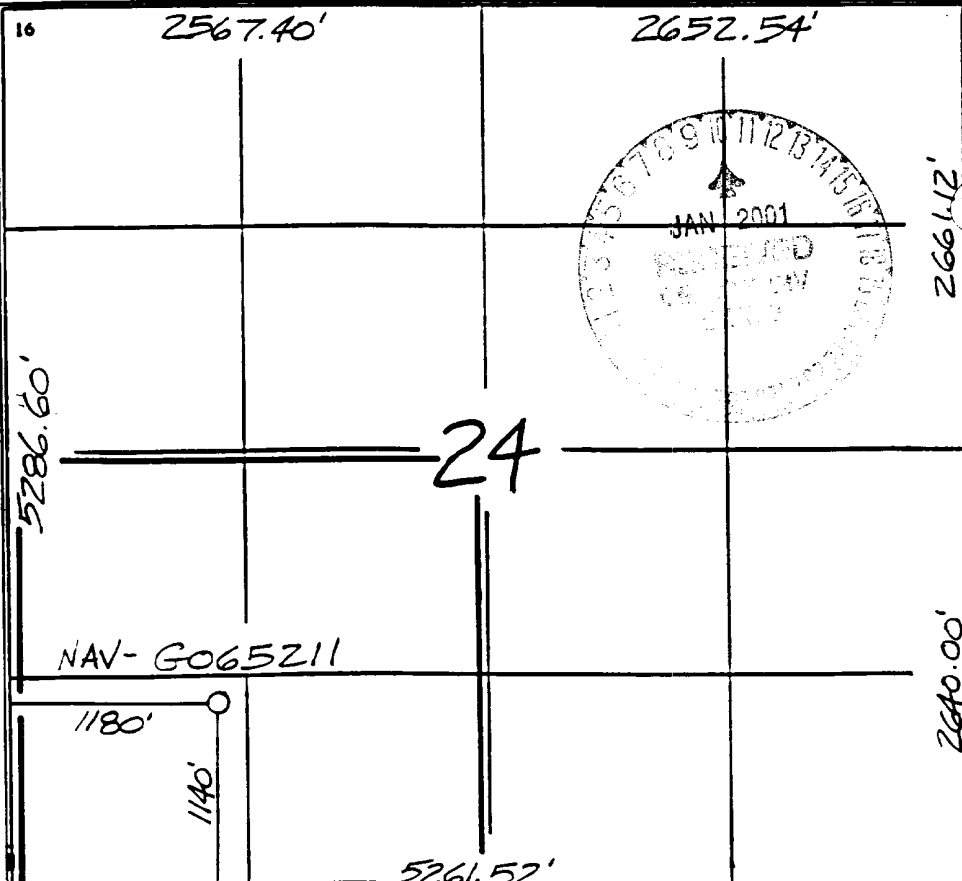
UL or lot no. M	Section 24	Township 27-N	Range 9-W	Lot Idn	Feet from the 1140	North/South line South	Feet from the 1180	East/West line West	County S.J.
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11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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12 Dedicated Acres 160	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

	<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><i>Perry Bradfield</i> Signature Perry Bradfield Printed Name Regulatory Administrator Title 1-15-97 Date</p>
	<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>11/26/96 Date of Survey Signature and Seal of Professional Surveyor <i>Neale C. Edwards</i> 6857 Certificate Number</p>

**APD MAP #1**

**EXISTING  
ROW**

**NAVAJO TRIBAL LANDS**

OPERATIONS PLAN

**Well Name:** Huerfanito Unit #45R  
**Location:** 1140' FSL, 1180' FWL Section 24, T-27-N, R-9-W  
 San Juan County, New Mexico  
 Latitude 36° 33.38, Longitude 107° 44.67  
**Formation:** So. Blanco Pictured Cliffs  
**Elevation:** 6159' GL

Formation:	Top	Bottom	Contents
Surface	Nacimiento	1239'	
Ojo Alamo	1239'	1370'	aquifer
Kirtland	1370'	1870'	
Fruitland	1870'	2110'	gas
Fruitland Coal	2060'	2102'	gas
Pictured Cliffs	2110'		gas
Total Depth	2400'		

**Logging Program:** Hi Res Ind, Den/Neut, MRL/GR to Total Depth.

**Mud Program:**

Interval	Type	Weight	Vis.	Fluid Loss
0- 120'	Spud	8.4-9.0	40-50	no control
120-2400'	LSND	8.4-9.0	40-60	no control

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

Hole Size	Depth Interval	Csg. Size	Wt.	Grade
12 1/4"	0 - 120'	8 5/8"	23.0#	M-50
6 1/4"	0 - 2400'	3 1/2"	7.7#	WC-70

**Tubing Program:** - none

**Float Equipment:** 8 5/8" surface casing - saw tooth guide shoe.  
Centralizers will be run in accordance with Onshore Order #2.

3 1/2" production casing - float shoe on bottom. Three centralizers run every other joint above shoe. Four centralizers run every 3rd joint to the base of the Ojo Alamo @ 1370'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1370'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

**Wellhead Equipment:** 8 5/8" x 3 1/2" x 11" 2000 psi screw on independent wellhead.

**Cementing:**

8 5/8" surface casing - cement with 129 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (149 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi for 30 minutes.

3 1/2" production casing - Lead w/280 sx of 65/35 Class "B" Poz w/6% gel, 2% calcium chloride, and 1/4# flocele/sx. Tail w/100 sx Class "B" w/2% calcium chloride (614 cu.ft. of slurry, 75% excess to circulate to surface). WOC 12 hrs. If cement does not circulate to surface, a CBL will be run during completion to determine TOC.

**BOP and tests:**

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1 and #2). Prior to drilling out surface casing, test rams to 600 psi/30 min.

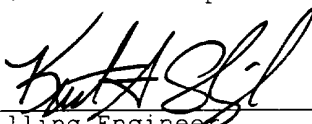
Completion - 6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams and casing to 2000 psi/15 min.

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.

**Additional information:**

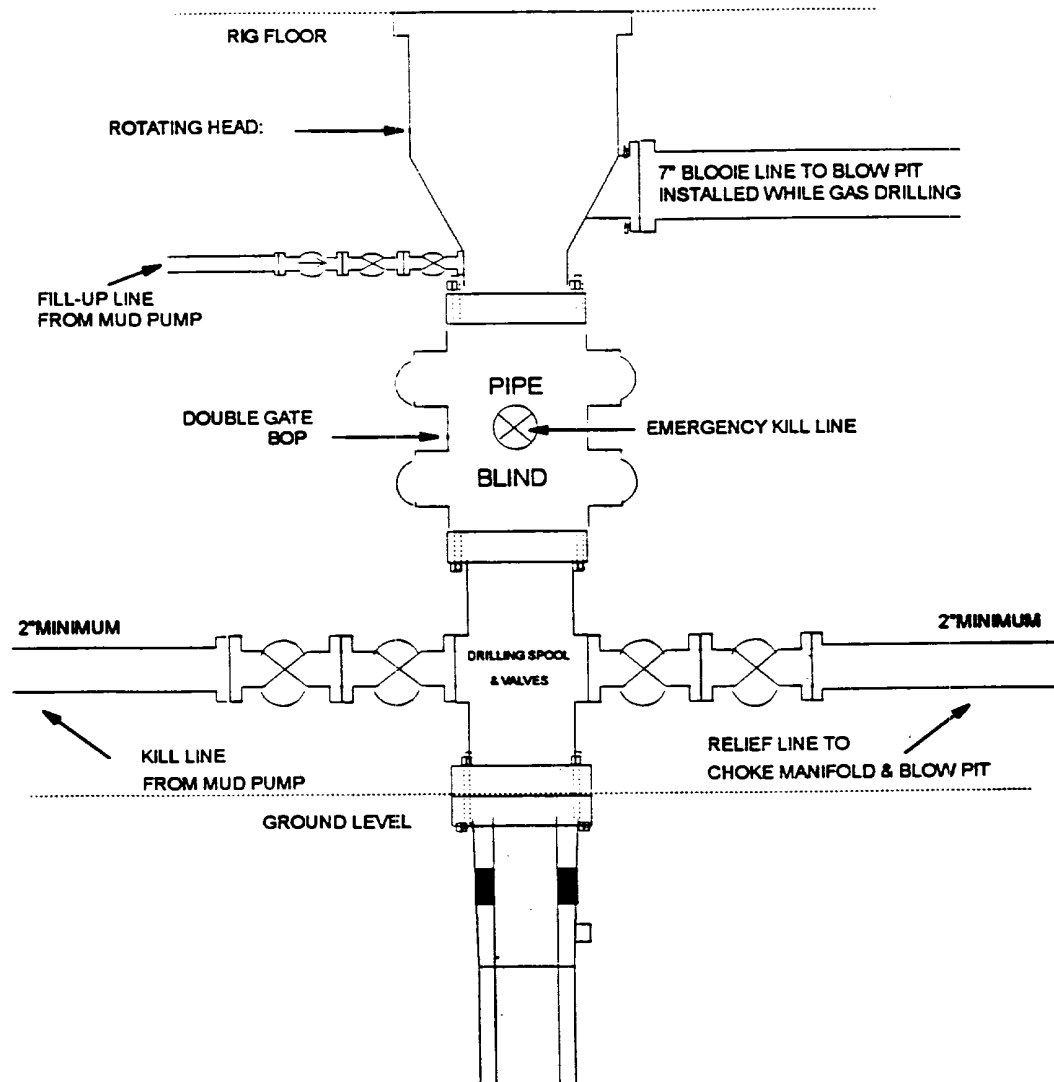
- \* The Pictured Cliffs formation will be completed.
- \* Anticipated pore pressure for the Pictured Cliffs is 300 psi.
- \* This gas is dedicated.
- \* The southwest quarter of the section is dedicated to the Pictured Cliffs.
- \* New casing will be utilized.
- \* Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

  
\_\_\_\_\_  
Drilling Engineer

  
\_\_\_\_\_  
Date

# BURLINGTON RESOURCES

## BOP Configuration 2M psi System



11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

FIGURE #1