

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
DRILL

1b. Type of Well
GAS

2. Operator
BURLINGTON RESOURCES Oil & Gas Company

3. Address & Phone No. of Operator
PO Box 4289, Farmington, NM 87499
(505) 326-9700

4. Location of Well
1715' FNL, 819' FWL
Latitude 36° 48.0, Longitude 107° 56.9

5. Lease Number
SF-078144
Unit Reporting Number

6. If Indian, All. or Tribe

7. Unit Agreement Name

8. Farm or Lease Name
Cedar Hill

9. Well Number
1M

10. Field, Pool, Wildcat
Blanco MV/Basin DK

11. Sec., Twn, Rge, Mer. (NMPM)
E Sec. 24, T-30-N, R-11-W
API # 30-045-30078

12. County
San Juan

13. State
NM

14. Distance in Miles from Nearest Town
6 miles from Aztec

15. Distance from Proposed Location to Nearest Property or Lease Line
819'

16. Acres in Lease

17. Acres Assigned to Well
DK 312.82 W/2
MV N 1320

18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease
1100'

19. Proposed Depth
7187' This action is subject to the best and
practices and procedures to be used in the
and expect pursuant to the GPM 0150.4.

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6103' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: Deanna Cole
Regulatory/Compliance Administrator

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

12-6-99
Date

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY /s/ Jim Lovato TITLE _____ DATE FEB 17 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.

chsc

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

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

DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

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

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-30078	² Pool Code 72319/71599	³ Pool Name Blanco Mesaverde/Basin Dakota
⁴ Property Code 6903	⁵ Property Name CEDAR HILL	⁶ Well Number 1M
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	⁹ Elevation 6103'



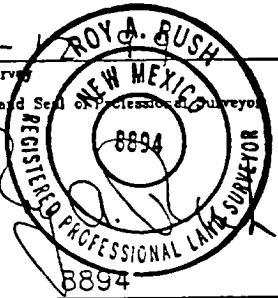
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	24	30-N	11-W		1715	NORTH	819	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 MV/DK: W/312.82 CAN/370					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

<div>16</div> <div>N 89-07-08 W</div> <div>2602.77'(M)</div> <div>FD. 1969</div> <div>BLM BRASS CAP</div> <div>LOT 4</div> <div>1715'</div> <div>SF-078144</div> <div>LOT 3</div> <div>LOT 5</div> <div>819'</div> <div>N 00-15-35 W</div> <div>LOT 6</div> <div>LAT. = 36° 48.0' N.</div> <div>LONG. = 107° 56.9' W.</div> <div>FD. 1969</div> <div>BLM BRASS CAP</div> <div>LOT 12</div> <div>SF-080113</div> <div>LOT 13</div>	<div>N 89-07-55 W</div> <div>2508.76'(M)</div> <div>FD. 1969</div> <div>BLM BRASS CAP</div> <div>24</div> <div>SF-078144</div> <div>LOT 11</div> <div>SF-078144</div> <div>LOT 14</div>	<div>17</div> <div>OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</div> <div></div> <div>Signature</div> <div>Peggy Cole</div> <div>Printed Name</div> <div>Regulatory Administrator</div> <div>Title</div> <div>12-6-99</div> <div>Date</div> <div>18</div> <div>SURVEYOR CERTIFICATION</div> <div>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.</div> <div>10-1</div> <div>Date of Survey</div> <div></div> <div>Signature and Seal of Professional Surveyor</div> <div></div> <div>8894</div> <div>Certificate Number</div>
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OPERATIONS PLAN

Well Name: Cedar Hill #1M
Location: 1715' FNL, 819' FWL, Sec 24, T-30-N, R-11-W
San Juan County, NM
Latitude 36° 48.0, Longitude 107° 56.9
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 6103' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1178'	
Ojo Alamo	1178'	1314'	aquifer
Kirtland	1314'	1966'	gas
Fruitland	1966'	2562'	gas
Pictured Cliffs	2562'	2716'	gas
Lewis	2716'	3314'	gas
Mesa Verde	3314'	3577'	gas
Chacra	3577'	4264'	gas
Massive Cliff House	4264'	4373'	gas
Menefee	4373'	4877'	gas
Massive Point Lookout	4877'	5267'	gas
Mancos	5267'	6112'	gas
Gallup	6112'	6846'	gas
Greenhorn	6846'	6902'	gas
Graneros	6902'	6962'	gas
Dakota	6962'		gas
TD	7187'		

Logging Program:

Cased hole - CBL-CCL-GR - TD to surface
Cores - none

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 320'	Spud	8.4-8.9	40-50	no control
320-7187'	LSND	8.4-9.0	40-60	8-12

Pit levels will be visually monitored to detect gain or loss of fluid control.

Casing Program:

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 320'	8 5/8"	24.0#	WC-50
7 7/8"	0' - 7187'	5 1/2"	15.5#	J-55

Tubing Program:

0' - 5267'	1 1/2"	2.76#	J-55 EUE
0' - 7187'	1 1/2"	2.90#	J-55 EUE

BOP Specifications, Wellhead and Tests:

Surface to 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.

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

6" 2000 psi double gate BOP stack (Reference Figure #2).
After nipple-up prior to completion, pipe rams and casing top will be tested to 3000 psi for 15 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Wellhead -

8 5/8" x 5 1/2" x 1 1/2" x 1 1/2" 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.
- A BOP pit level drill will be conducted weekly for each drilling crew.
- All of the BOP tests and drills will be recorded in the daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

8 5/8" surface casing -

Cement to surface w/336 sx Class "B" cement w/3% calcium chloride and 1/4#/sx cellophane flakes (396 cu.ft. of slurry, 200% excess to circulate to surface.) WOC 8 hr prior to drilling out surface casing. 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.

Production Casing - 5 1/2"

Two-stage cement job as follows:

First Stage: Cement to circulate to stage tool @ 3594'. Lead with 923 sx Class "B" 50/50 poz with 2% gel, 0.25 pps Cellophane, 5 pps Kolite, 0.4% D-60, 0.2% D-65. WOC 4 hours prior to pumping second stage. (Slurry volume: 1246 cu.ft. Excess slurry 50%.)

Second Stage: Cement to circulate to surface. Cement with 425 sx Class "B" with 3% sodium metasilicate, 0.25 pps cellophane, 5 pps Kolite. WOC a minimum of 18 hours prior to cleanout. (Slurry volume: 1246 cu.ft. Excess slurry: 50%.)

Float shoe on bottom. Three centralizers run every other joint above shoe. Thirty-five centralizers - one every 4th joint to the base of the Ojo Alamo @ 1314'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1314'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Additional Information:

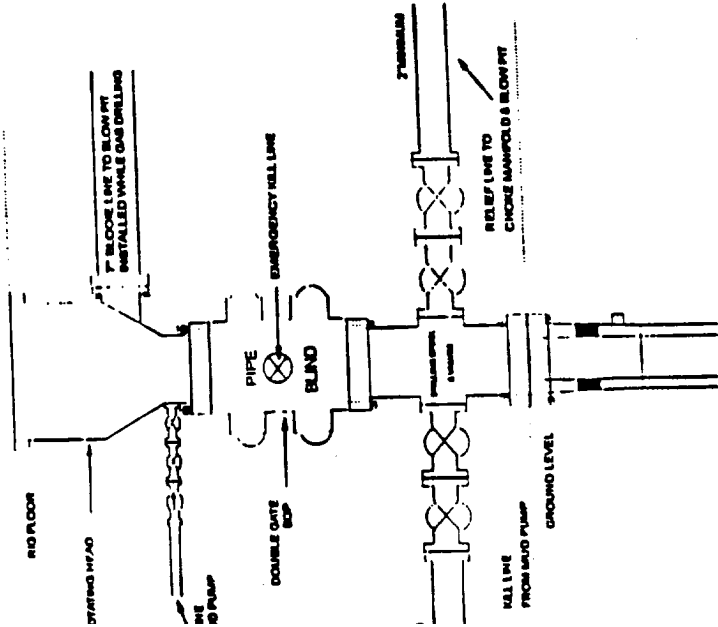
- The Mesaverde and Dakota formations will be completed and dualled.
- No abnormal temperatures or hazards are anticipated.
 - Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
 - The west half of Section 24 is dedicated to this well.
 - This gas is dedicated.
 - Anticipated pore pressure

Fruitland Coal	300 psi
Pictured Cliffs	500 psi
Mesa Verde	700 psi
Dakota	3000 psi

N. J. J. J. J.
Drilling Engineer

12/7/1999
Date

BOP Configuration 2M psi System

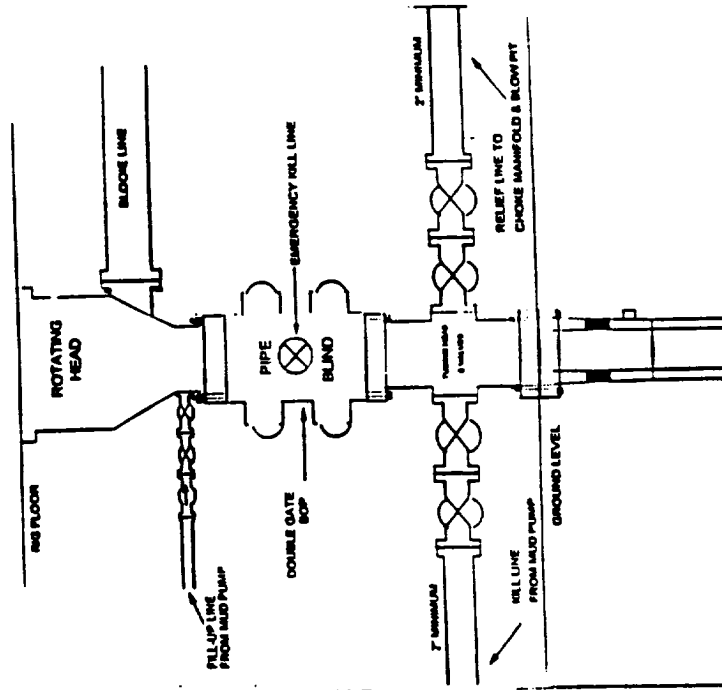


Minimum 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schuffler Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure or better.

FIGURE #1

BURLINGTON RESOURCES

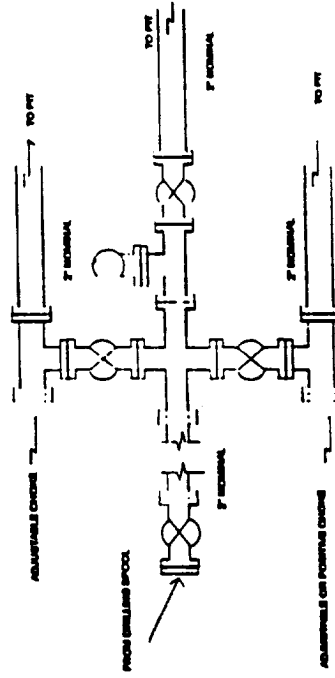
BOP Configuration 2M psi System



Minimum BOP Installation for Completion operations. 7 1/16" Bore (6" Nominal), 2,000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams.

FIGURE #2

Choke Manifold Configuration 2M System



Minimum choke manifold installation from surface to Total Depth. 2" minimum, 2000psi working pressure equipment with two chokes.

Figure #3

BURLINGTON RESOURCES OIL & GAS COMPANY

CEDAR HILL #1M

NW/4 SEC. 24, T-30-N, R-11-W, N.M.P.M.,

SAN JUAN COUNTY, NEW MEXICO

1715 FNL, 819' FWL

