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** 2002 FEB 26 PM 1:45
NMSF-079391
Unit Reporting Number
MV-891000950A
DK-891000950

1b. **Type of Well**
GAS

6. **If Indian, Alt. or Tribe**

MAY 2002

2. **Operator**
BURLINGTON RESOURCES Oil & Gas Company

7. **Unit Agreement Name**
San Juan 27-5 Unit

3. **Address & Phone No. of Operator**
PO Box 4289, Farmington, NM 87499

(505) 326-9700

8. **Farm or Lease Name**
San Juan 27-5 Unit

9. **Well Number**
69N

4. **Location of Well**
1410' FSL, 1780' FEL,

Latitude 36° 35.1, Longitude 107° 23.8

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

11. **Sec., Twn, Rge, Mer. (NMPM)**
Sec. 7, T-27-N, R-5-W

API # 30-039- 26973

14. **Distance in Miles from Nearest Town**
36 miles from Blanco

12. **County** Rio Arriba

13. **State** NM

15. **Distance from Proposed Location to Nearest Property or Lease Line**
1410'

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**
883'

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

19. **Proposed Depth**
7810'

20. **Rotary or Cable Tools**
Rotary

21. **Elevations (DF, FT, GR, Etc.)**
6604' GR

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:** Peggy Cole
Regulatory/Compliance Supervisor

2-5-02
Date

PERMIT NO. _____ **APPROVAL DATE** _____

APPROVED BY /s/ David J. Mankiewicz **TITLE** _____ **DATE** 5-13-02

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
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

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹API Number	²Pool Code	³Pool Name
30-045 26973	72319/71599	Blanco MV/Basin DK

⁴Property Code	⁵Property Name	⁶Well Number
7454	SAN JUAN 27-5 UNIT	69N

⁷OGRID No.	⁸Operator Name	⁹Elevation
14538	BURLINGTON RESOURCES OIL & GAS, INC.	6604'

¹⁰ Surface Location

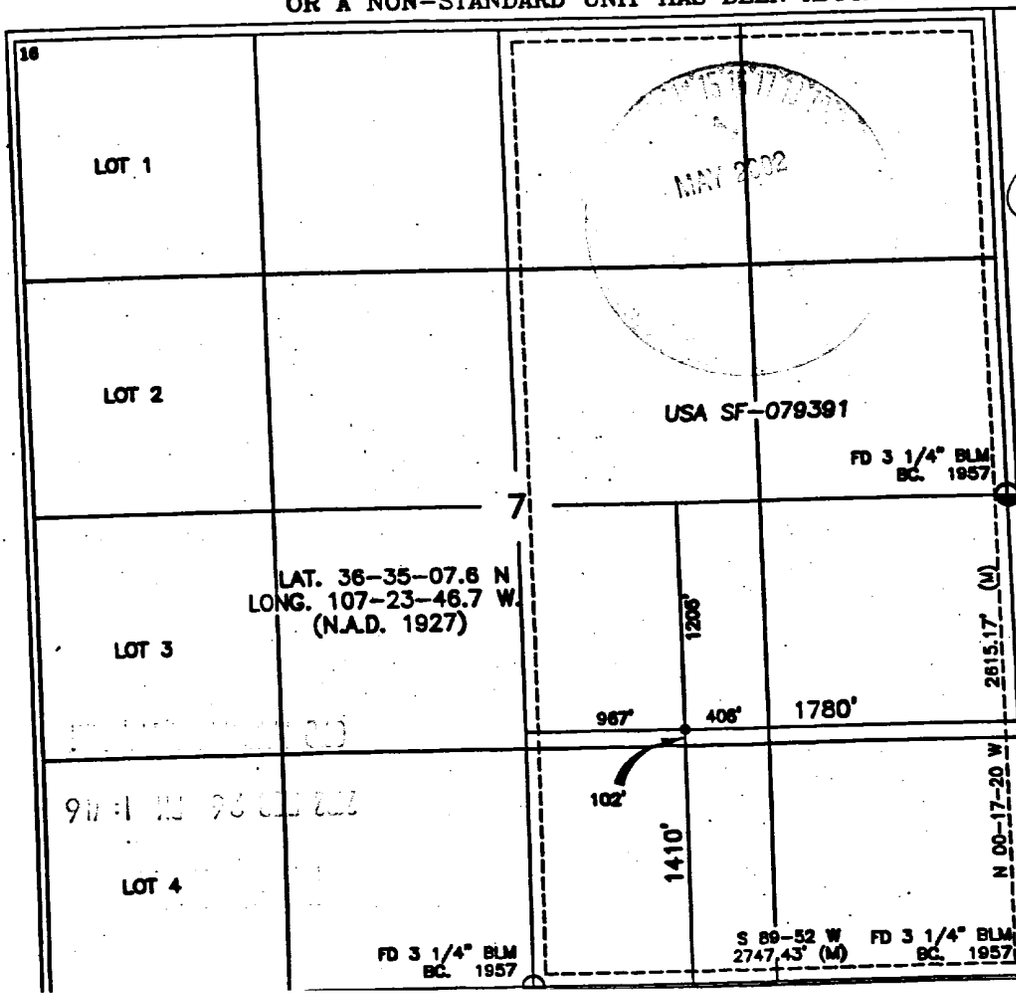
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	7	27-N	5-W		1410	SOUTH	1780	EAST	RIO ARRIBA

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

¹²Dedicated Acres	¹³Joint or Infill	¹⁴Consolidation Code	¹⁵Order No.
E-320			

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.

Signature: Peggy Cole

Peggy Cole
Printed Name

Regulatory Supervisor
Title

2-5-02
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.

10-01-01
Date Surveyed

Signature and Seal of Professional Surveyor

ROY A. RUSH
NEW MEXICO
8894
REGISTERED PROFESSIONAL LAND SURVEYOR

8894
Certificate Number

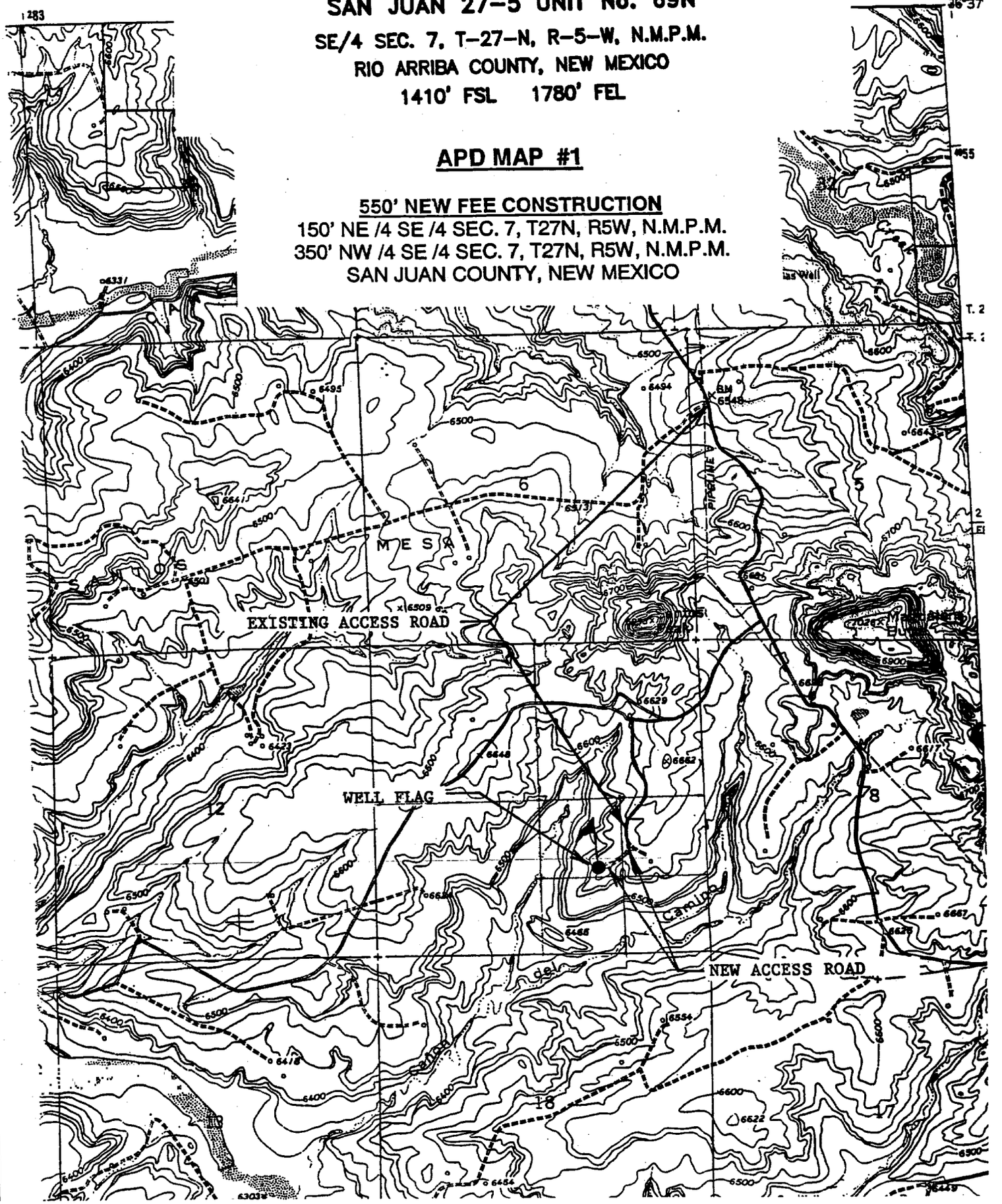
BURLINGTON RESOURCES OIL & GAS, INC.

SAN JUAN 27-5 UNIT No. 69N

SE/4 SEC. 7, T-27-N, R-5-W, N.M.P.M.
RIO ARRIBA COUNTY, NEW MEXICO
1410' FSL 1780' FEL

APD MAP #1

550' NEW FEE CONSTRUCTION
150' NE /4 SE /4 SEC. 7, T27N, R5W, N.M.P.M.
350' NW /4 SE /4 SEC. 7, T27N, R5W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



OPERATIONS PLAN

Well Name: San Juan 27-5 Unit #69N
1410'FSL, 1780'FEL, Section 7, T-27-N, R-5-W
Rio Arriba County, New Mexico
Latitude 36° 35.1, Longitude 107° 23.8

Formation: Blanco Mesa Verde/Basin Dakota

Elevation: 6604'GL

Formation Tops:	***Top***	***Bottom***	***Contents***
Surface	San Jose	2676'	
Ojo Alamo	2676'	2886'	aquifer
Kirtland	2886'	3176'	gas
Fruitland	3176'	3391'	
Pictured Cliffs	3391'	3486'	gas
Lewis	3486'	3900'	gas
Intermediate TD	**3586'**		
Huerfanito Bentonite	3900'	4331'	gas
Chacra	4331'	5041'	gas
Cliff House	5041'	5156'	
Menefee	5156'	5531'	gas
Point Lookout	5531'	6041'	gas
Mancos	6041'	6731'	gas
Gallup	6731'	7469'	gas
Greenhorn	7469'	7536'	gas
Graneros	7536'	7560'	gas
Dakota	7560'		gas
TD	**7810'**		

Logging Program:
Mud logs - none
Open hole - none
Cased hole - CBL-CCL-GR - TD to surface
Cores - none

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 250'	Spud	8.4-9.0	40-50	no control
250- 3586'	LSND	8.4-9.0	30-60	no control
3586- 7810'	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):

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0' - 250'	9 5/8"	32.3#	WC-50
8 3/4"	0' - 3586'	7"	20.0#	J-55
6 1/4"	3486' - 7810'	4 1/2"	10.5#	K-55

Tubing Program:
0' - 7810'

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 199 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (235 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/373 sx 50/50 Class "G" TXI Liteweight cement with 2% calcium chloride, 2.5% sodium metasilicate, 10 pps Gilsonite and 0.5 pps Celloflake. Tail w/90 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps Gilsonite, 0.25 pps Celloflake (1078 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.

See attached alternative intermediate lead slurry.

7" intermediate casing alternative two stage: Stage collar 3076'. First stage: cement with w/120 sx Class "G" 50/50 poz w/2% gel, 2% calcium chloride, 5 pps gilsonite, 0.25 pps Celloflake. Second stage: 358 sx 50/50 Class "G"/TXI Liteweight with 2% calcium chloride, 2.5% sodium metasilicate, 10 pps Gilsonite, 0.25 pps Celloflake (1078 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 2886'. Two turbolating centralizers at the base of the Ojo Alamo at 2886'. 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 431 sx 50/50 Class "G" Poz with 5% gel, 0.25 pps Celloflake, 5 pps Gilsonite (621 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 east half of Section 7 is dedicated to the Mesaverde and the Dakota in this well.
- This gas is dedicated.

Brennan D. Hurt
Drilling Engineer

2/7/02
Date