UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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00 AUG -4 PM 1:32
070 FARMINGTON NM

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. **Type of Work**
DRILL

1b. **Type of Well**
GAS

5. **Lease Number**
SF-079082A
Unit Reporting Number

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

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

7. **Unit Agreement Name**
Northeast Blanco Unit

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

(505) 326-9700

8. **Farm or Lease Name**
Northeast Blanco Unit

9. **Well Number**
41A

4. **Location of Well**
1260' FSL, 1815' FEL

Latitude 36° 51.9, Longitude 107° 37.5

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

11. **Sec., Twn, Rge, Mer. (NMPM)**
Sec. 25, T-31-N, R-8-W

API # 30-045- 29968

14. **Distance in Miles from Nearest Town**
5 miles to Navajo Dam Post Office

12. **County** San Juan

13. **State** NM

15. **Distance from Proposed Location to Nearest Property or Lease Line**
1260'

16. **Acres in Lease**

17. **Acres Assigned to Well**
~~320.00~~ 308.55 E2

18. **Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease**
2300'

19. **Proposed Depth**
7979'

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

20. **Rotary or Cable Tools**
Rotary

21. **Elevations (DF, FT, GR, Etc.)**
6474' 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 Bradfield
Regulatory/Compliance Administrator

6-11-99
Date

PERMIT NO. _____ **APPROVAL DATE** _____

APPROVED BY /s/ Jim Lovato **TITLE** _____ **DATE** OCT 31 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-10
Revised February 21, 199
Instructions on bac
Submit to Appropriate District Offic
State Lease - 4 Copie
Fee Lease - 3 Copie

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070 FARMINGTON NM

☐ AMENDED REPOR

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹API Number	²Pool Code	³Pool Name
30-045-29965	71599/72319	Basin Dakota/Blanco Mesaverde
⁴Property Code 23785	⁵Property Name NORTHEAST BLANCO UNIT	⁶Well Number 41A
⁷OGRID No. 14538	⁸Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	⁹Elevation 6474'

¹⁰ Surface Location

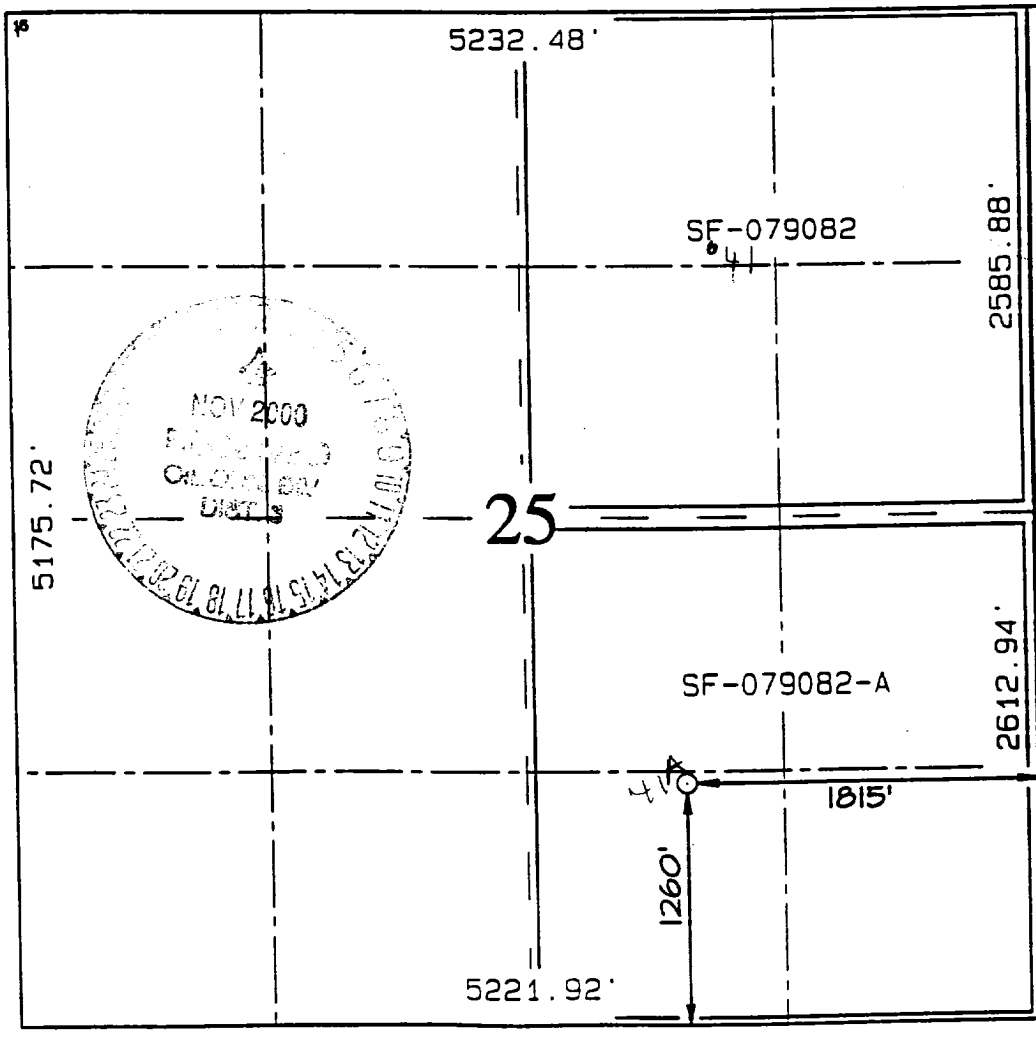
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	25	31N	8W		1260	SOUTH	1815	EAST	SAN JUA

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.
MV - E/[illegible] 308.55 DK - E/[illegible]	I		

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 belie

Signature

Peggy Bradfield
Printed Name

Regulatory Administratc
Title

8-11-99
Date

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this p was plotted from field notes of actual surveys made by or under my supervision, and that the same is true and correct to the best of my belief.

MARCH 5, 1999
Date of Survey

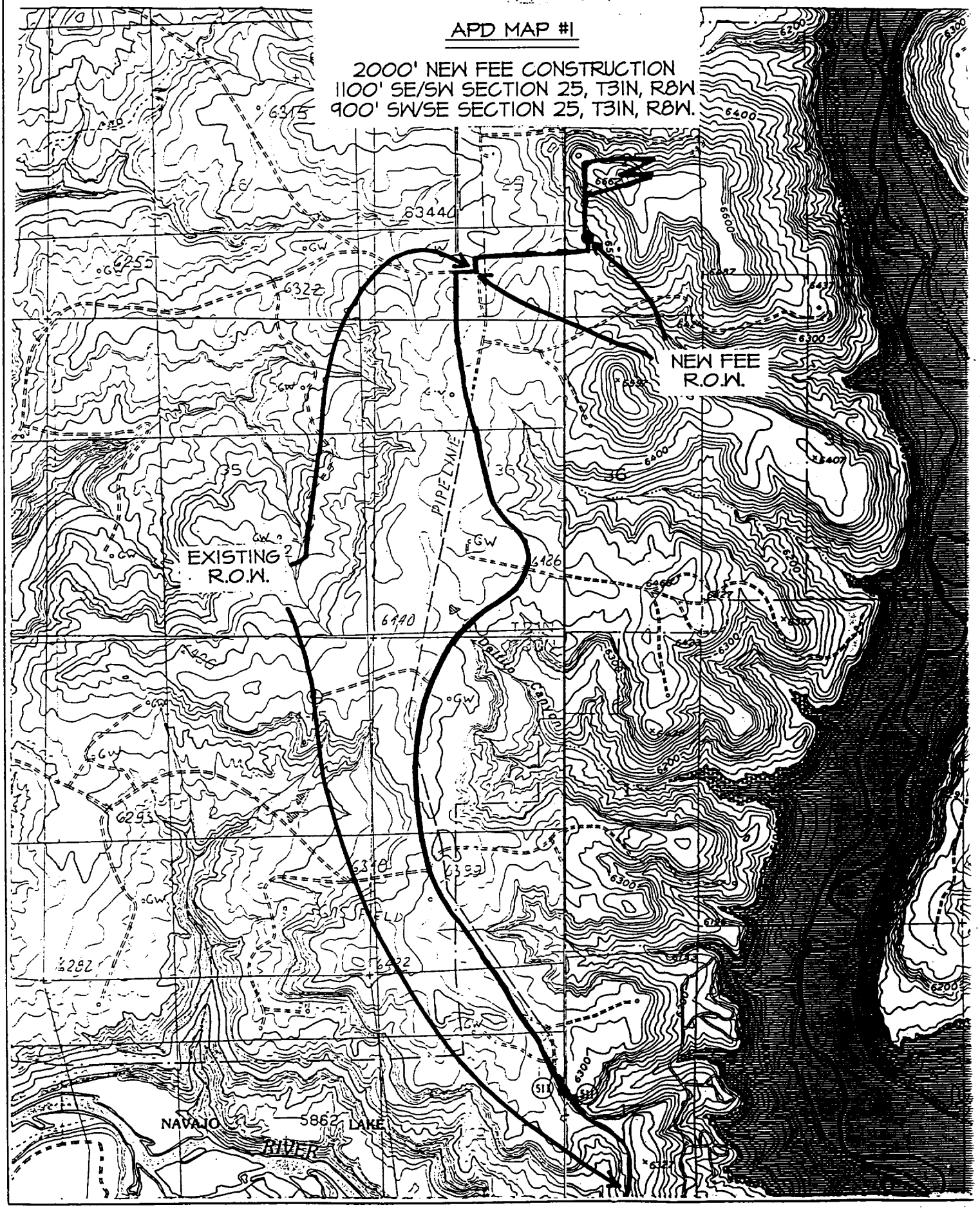
Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

Certificate Number 6857

BURLINGTON RESOURCES OIL & GAS COMPANY NORTHEAST BLANCO UNIT #41A

1260' FSL & 1815' FEL, SECTION 25, T31N, R8W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



June 8, 1999

OPERATIONS PLAN

Well Name: Northeast Blanco Unit #41A
Location: 1260' FSL, 1815' FEL, Sec. 25, T-31-N, R-8-W
San Juan County, NM
Latitude 36° 51.9 Longitude 107° 37.5
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 6474'GR

Formation Tops:	Top	Bottom	Contents
Surface	San Jose	2294'	
Ojo Alamo	2294'	2389'	
Kirtland	2389'	2901'	
Fruitland	2901'	3397'	
Pictured Cliffs	3397'	3489'	
Lewis	3489'	4145'	
Intermediate TD	**3589'**		
Mesa Verde	4145'	4529'	
Chacra	4529'	5319'	
Massive Cliff House	5319'	5377'	
Menefee	5377'	5656'	
Massive Point Lookout	5656'	6061'	
Mancos	6061'	6943'	
Gallup	6943'	7674'	
Greenhorn	7674'	7727'	
Graneros	7727'	7867'	
Dakota	7867'	7949'	
Oak Canyon	7949'	7979'	
Encinal Canyon	7979'		
TD	**7979'**		

Logging Program:
Open Hole - Array Ind/Neutron-Density @ Intermediate Casing
Open Hole - Array Ind/Temp/Neutron-Density @ TD
Cased Hole - (TDT @ Intermediate Casing to 2389' (if open-hole logs do not go)

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 200'	Spud	8.4-9.0	40-50	no control
200-3589'	LSND	8.4-9.0	30-60	no control
3589-7979'	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):

Hole Size	Depth Interval	Csg.Size	Wt	Grade
12 1/4"	0' - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3589'	7"	20.0#	J-55
6 1/4"	3489' - 7979'	4 1/2"	10.5#	J-55

Tubing Program:

0' - 7979'	2 3/8"	4.70# EUE

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.

BOP Specifications, Wellhead and Tests:

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 Fig #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 -

9 5/8" x 7" x 2 3/8" x 2000 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 159 sx Class "B" cement with 1/4# flocele/sx and 2% calcium chloride (188 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/330 sx Class "B" w/3% sodium metasilicate, 10# gilsonite/sx and 1/2# flocele/sx. Tail w/85 sx 50/50 Class "B" Poz w/2% calcium chloride, 1/2# flocele/sx, 10# gilsonite/sx (1079 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.

Alternate two-stage cement job. Stage tool @ 2800'. Cement 1st stage w/117 sx 50/50 Class "B" poz w/2% calcium chloride, ¼# flocele/sx, 10# gilsonite/sx. Cement 2nd stage w/289 sx Class "B" cement w/3% sodium metasilicate, 10# gilsonite/sx, ¼# flocele/sx (1079 cu.ft. of slurry, 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 2389'. Two turbolating centralizers at the base of the Ojo Alamo at 2389'. 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. Cement with 489 sx 50/50 Class "B" Poz with 2% gel, 1/4# flocele/sx, 5# gilsonite/sx, and 0.4% fluid loss additive (645 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 shoe joint.

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. Instead, 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" CIBP will be set above the last fracturing job to cut and pull the 4 1/2" casing above the 7" casing shoe. The 4 1/2" bridge plug will then be milled and tubing will be run for completion.

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 Mesa Verde 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	500 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 is dedicated to the Mesa Verde and Dakota in this well.
- This gas is dedicated.

Drilling Engineer

6-16-99
Date