



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

March 23, 1999

RECEIVED
MAR 26 1999

OIL CON. DIV.
DIST. 3

Burlington Resources Oil & Gas Company
P. O. Box 4289
Farmington, New Mexico 87499-4289
Attention: Peggy Bradfield

Administrative Order NSL-4242

Dear Ms. Bradfield:

Reference is made to your application submitted to the New Mexico Oil Conservation Division ("Division") on March 23, 1999 for an exception to the well location requirements provided within the "Special Rules and Regulations for the Basin-Dakota Pool," as promulgated by Division Order No. R-10987, for a non-standard Basin-Dakota infill gas well location in an existing standard 320-acre stand-up gas spacing and proration unit for the Basin-Dakota Pool comprising the W/2 of Section 29, Township 27 North, Range 4 West, NMPM, Rio Arriba County, New Mexico. This unit is currently dedicated to Burlington's San Juan "27-4" Unit Well No. 52 (API No. 30-039-20148), located a standard gas well location 1750 feet from the South line and 1180 feet from the West line (Unit L) of Section 29.

The application has been duly filed under the provisions of Division Rules 104.F and 605.B.

By the authority granted me under the provisions of Division Rule 104.F(2), the following described well to be drilled at an unorthodox infill gas well location in Section 29 is hereby approved:

San Juan 27-4 Unit Well No. 52-M
1040' FNL & 1370' FWL (Unit C).

-29-27N-4W

30039-24035

Further, both of the aforementioned San Juan "27-4" Unit Well Nos. 52 and 52-M and existing gas spacing and proration unit will be subject to all existing rules, regulations, policies, and procedures applicable to prorated gas pools in Northwest, New Mexico.

Sincerely,

Lori Wrotenbery
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Aztec /
U. S. Bureau of Land Management - Farmington

This has an
API #, but
Not App yet.
LW-

BURLINGTON RESOURCES

SAN JUAN DIVISION

Sent Federal Express

Mr. Michael Stogner
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: San Juan 27-4 Unit #52M
1040'FNL, 1370'FWL Section 29, T-27-N, R-4-W, Rio Arriba County
30-039-not assigned

Dear Mr. Stogner:

Burlington Resources is applying for administrative approval of an unorthodox gas well location for the Dakota pool. This location is located on a timbered ridge top which is adjacent to an existing access road and well pad (San Juan 27-4 Unit #113 located 840'FNL, 940'FWL API#30-039-21016). If the well were placed 80' to the east to be standard, the cuts would increase, more tree cutting would be required, and the location would be highly visible from a larger area of National Forest Lands. This well is proposed to be drilled as a Mesa Verde-Dakota commingle and DHC-2227 has been issued.

Production from the Dakota pool is to be included in a 320 acre gas spacing and proration unit for the west half (W/2) in Section 29 and is to be dedicated to the San Juan 27-4 Unit #52 (30-039-20148) located at 1750'FSL, 1180'FWL of Section 29. Production from the Mesa Verde pool is to be included in a 320 acre gas spacing and proration unit for the west half (W/2) in Section 29 and is to be dedicated to the San Juan 27-4 Unit #52 (30-039-20148) located at 1750'FSL, 1180'FWL of Section 29. The San Juan 27-4 Unit #52 Dakota well is scheduled in 1999 for recompletion to include and commingle the Mesa Verde.

The following attachments are for your review:

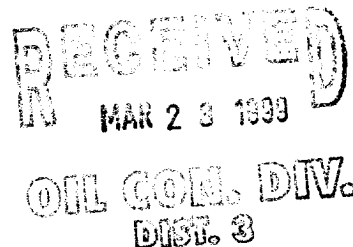
- Application for Permit to Drill.
- Completed C-102 at referenced location.
- Offset operators/owners plat
- 7.5 minute topographic map.

We appreciate your earliest consideration of this application.

Sincerely,

Peggy Bradfield
Regulatory/Compliance Administrator

xc: NMOCD - Aztec District Office
Bureau of Land Management



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 SF-080670 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 San Juan 27-4 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 27-4 Unit 9. Well Number 52M	
4. Location of Well 1040' FNL, 1370' FWL Latitude 36° 32' 55", Longitude 107° 16' 38"	10. Field, Pool, Wildcat Blanco MV/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 29, T-27-N, R-4-W API # 30-039-	
14. Distance in Miles from Nearest Town 56 miles to Bloomfield	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1040'	17. Acres Assigned to Well 320 W/2	
16. Acres in Lease		
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 400'		
19. Proposed Depth 8474'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 7193' 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 Administrator	Date <u>10-23-98</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.

District I
PO Box 1980, Hobbs NM 88241-1980
District II
PO Drawer KKK, Aramis, NM 87211-0719
District III
1000 Rio Brancos 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

¹ API Number 30-039-	² Pool Code 71599/72319	³ Pool Name Basin Dakota/Blanco Mesaverde
⁴ Property Code 7452	⁵ Property Name SAN JUAN 27-4 UNIT	⁶ Well Number # 52M
⁷ OGRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	⁹ Elevation 7193

¹⁰ Surface Location

UL or Lot No.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
C	29	27 N	4 W		1040	NORTH	1370	WEST	RIO ARRIBA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County

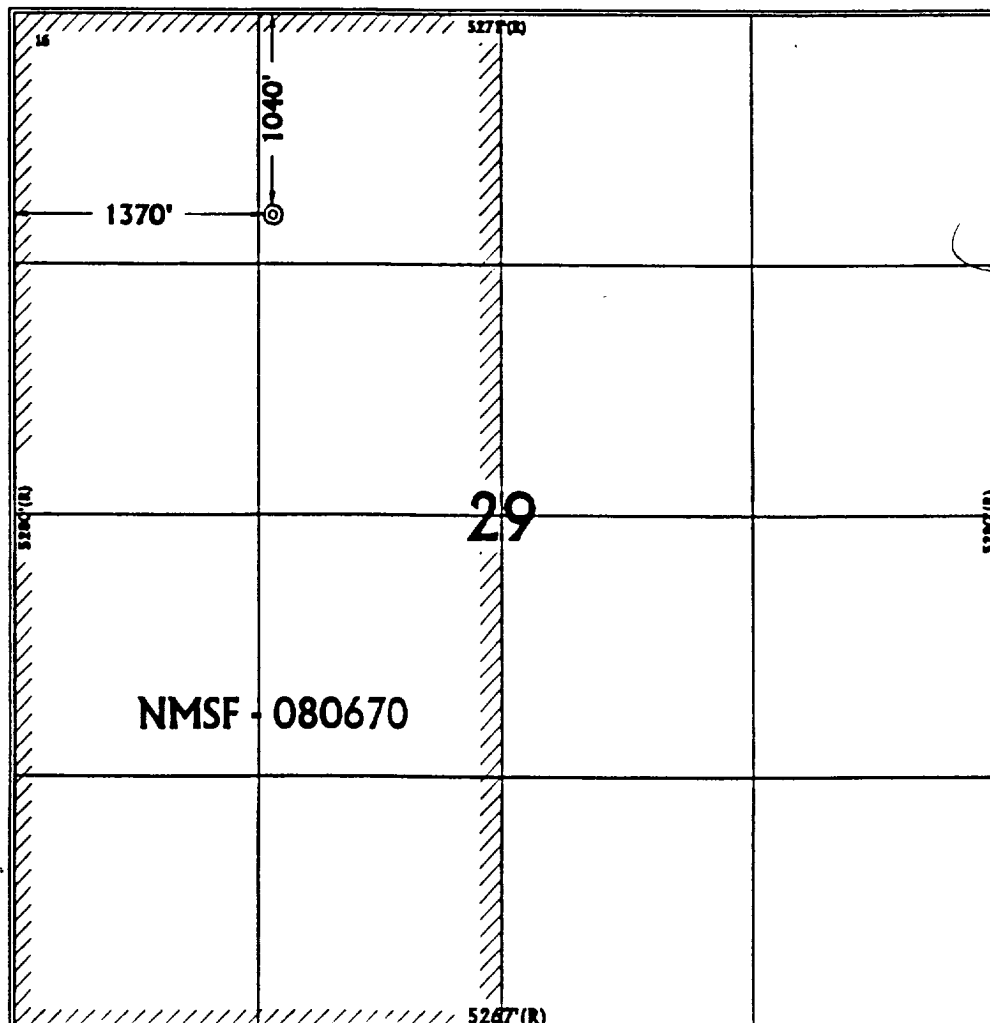
¹² Dedicated Acres
DK: W/320
MV: W/320

¹³ Joint or Infill

¹⁴ Consolidation Code

¹⁵ Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTEREST HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁶ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

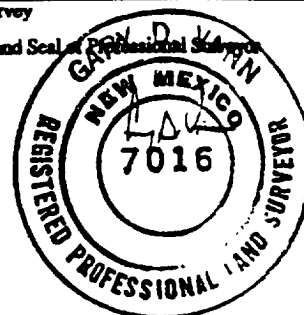
Peggy Bradfield
Signature
Peggy Bradfield
Printed Name
Regulatory Administrator
Title
10-25-98
Date

¹⁷ 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.

August 10, 1998
Date of Survey

Signature and Seal of Professional Surveyor



7016
Certificate Number

OPERATIONS PLAN

Well Name: San Juan 27-4 Unit #52M
Location: 1040'FNL, 1370'FWL, Sec 29, T-27-N, R-4-W
Rio Arriba County, NM
Latitude 36° 32'55", Longitude 107° 16'38"
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 7193'GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	3512'	
Ojo Alamo	3512'	3576'	aquifer
Kirtland	3576'	3668'	gas
Fruitland	3668'	4047'	gas
Pictured Cliffs	4047'	4147'	gas
Lewis	4147'	4500'	gas
Intermediate TD	4247'		
Mesa Verde	4500'	5025'	gas
Chacra	5025'	5748'	gas
Massive Cliff House	5748'	5868'	gas
Menefee	5868'	6245'	gas
Massive Point Lookout	6245'	6720'	gas
Mancos	6720'	7367'	gas
Gallup	7367'	8153'	gas
Greenhorn	8153'	8210'	gas
Graneros	8210'	8376'	gas
Dakota	8376'		gas
TD (4 1/2"liner)	8474'		

Logging Program:

Cased hole - CBL - TD to 200' above TOC, GR/CNL across MV/DK

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-9.0	40-50	no control
200-4247'	LSND	8.4-9.0	30-60	no control
4247-8474'	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):

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg.Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 200'	9 5/8"	32.3#	K-55
8 3/4"	0' - 4247'	7"	20.0#	J-55
6 1/4"	4147' - 8474'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 8474' 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.

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 Figure #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 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 163 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/395 sx Class "B" w/3% sodium metasilicate, 7# gilsonite/sx and 1/2# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% calcium chloride (1277 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.

7" intermediate casing alternative two stage: Stage collar at 2124'. First stage: cement with 176 sx Class "B" cmt with 7 pps gilsonite, 1/2 pps cellophane, 3% sodium metasilicate. Tailed w/90 sx Class "B" 50/50 poz w/2% gel, 2% calcium chloride, 0.5 pps Cellophane. Second stage: 219 sx Class "B" with 3% sodium metasilicate, 1/2 pps Cellophane, 7 pps Gilsonite (1277 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 3576'. Two turbolating centralizers at the base of the Ojo Alamo at 3576'. 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 504 sx 50/50 Class "B" Poz with 2% gel, 0.25 flocele/sx, 5# gilsonite/sx, and 0.3% fluid loss additive (665 cu.ft.), 50% 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. 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.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

Special Drilling Operations (Gas/Mist Drilling):

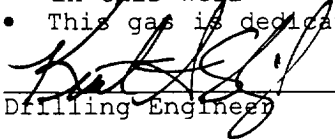
The following equipment will be operational while gas/mist drilling:

- 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 Dakota and Mesa Verde formations will be completed and commingled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

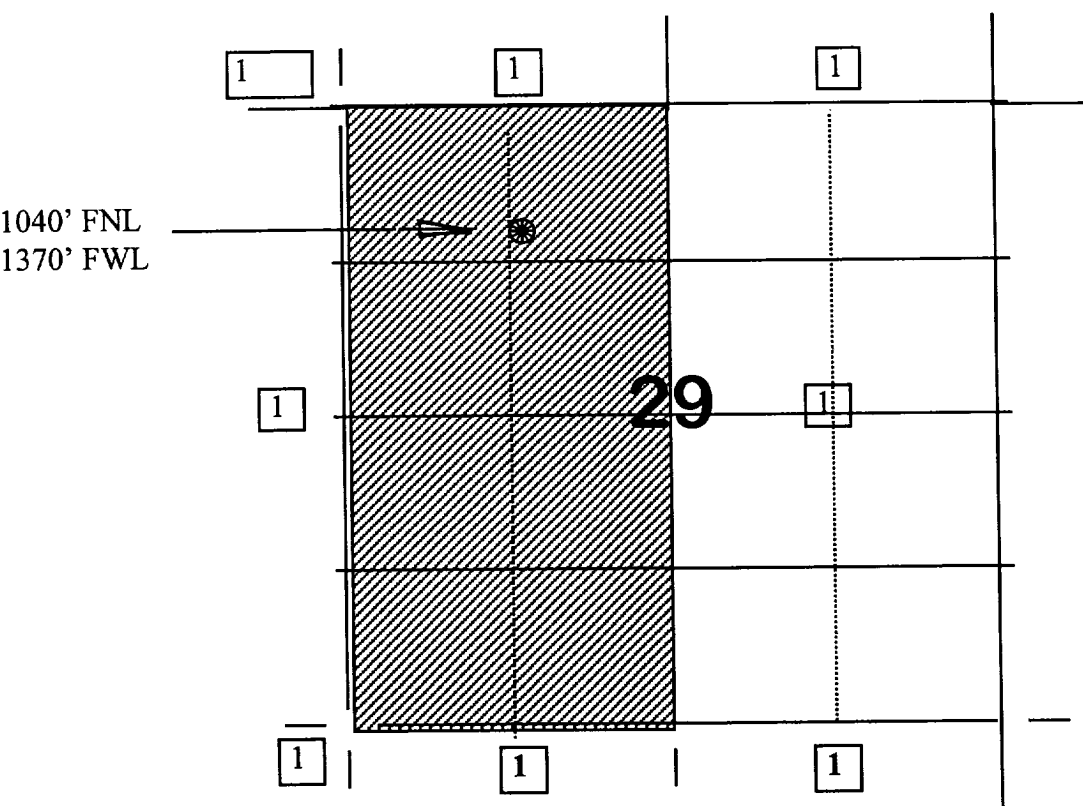
Fruitland Coal	800 psi
Pictured Cliffs	800 psi
Mesa Verde	700 psi
Dakota	2500 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered.
- The west half of Section 29 is dedicated to the Mesa Verde and Dakota in this well
- This gas is dedicated.



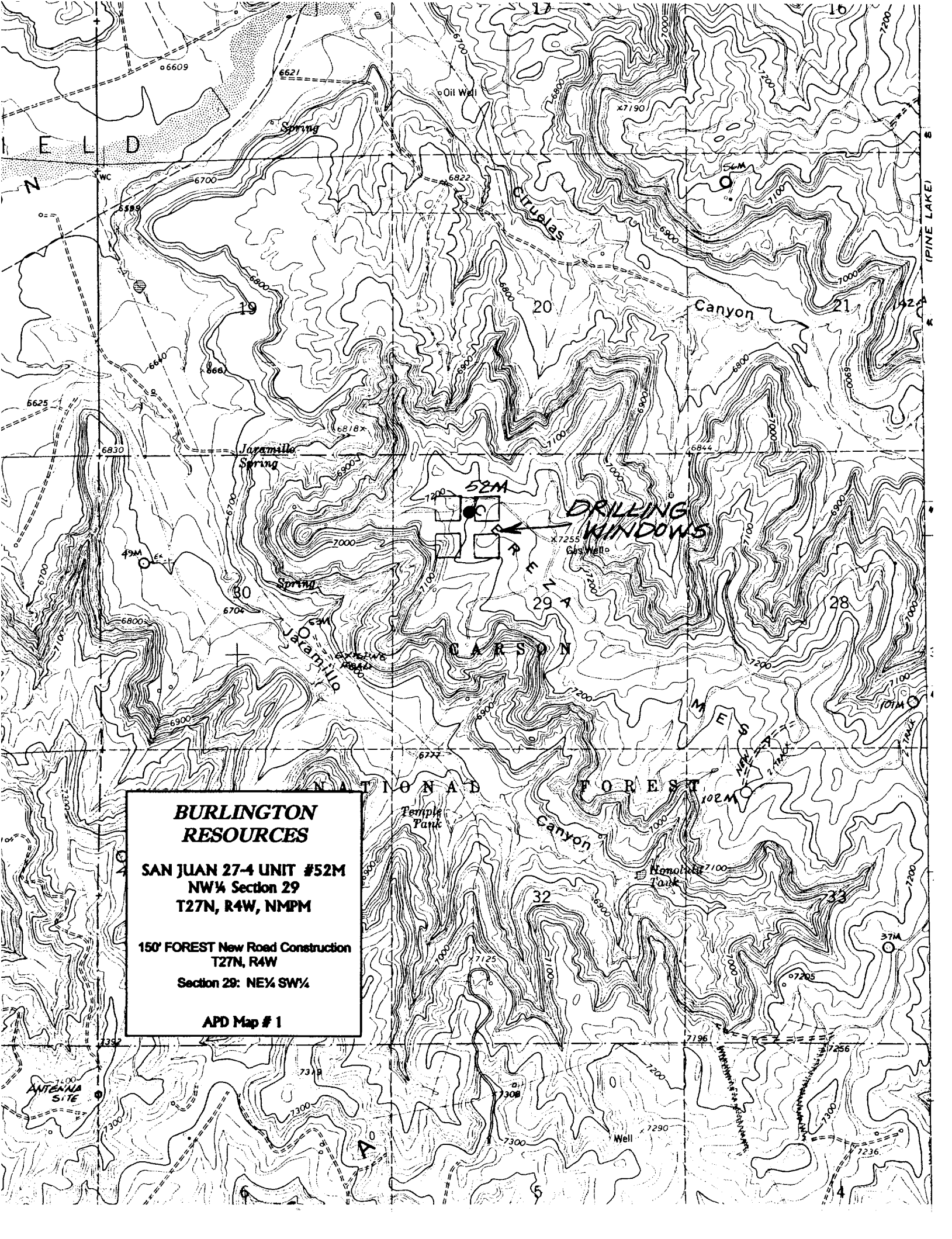
Drilling Engineer

Date

Township 27 North, Range 4 West



1) Burlington Resources



**BURLINGTON
RESOURCES**

**SAN JUAN 27-4 UNIT #52M
NW¼ Section 29
T27N, R4W, NMPM**

**150' FOREST New Road Construction
T27N, R4W**

Section 29: NE¼ SW¼

APD Map # 1



United States
Department of
Agriculture

Forest
Service

Jicarilla
Ranger District

664 East Broadway
Bloomfield, NM 87413
(505) 632-2956
Fax: (505) 632-3173

File Code: 2820

Date: 8/31/98

Chuck Smith
Burlington Resources
POB 4289
Farmington, NM 87499

RE: Unorthodox location for wells: San Juan 27-4 #39M
 San Juan 27-4 #46M
 San Juan 27-4 #52M
 Carson SRC #2A

Dear Mr. Smith,

The Jicarilla Ranger District, Carson National Forest is requesting you apply for an unorthodox location as follows, as discussed by your company representative and Camela Hooley of this office:

SJ 27-4 #39M, T27N R4W Sec.5, 2250'FNL/910'FWL
SJ 27-4 #46M, T27N R4W Sec.31, 1875'FN:/405'FWL
SJ 27-4 #52M, T27n R4W Sec.29, 1040'FNL/1370'FWL
Carson SRC #2A, T30N R5W Sec.1, 1850'FSL/1270'FEL

The mineral operator is required to comply with other other applicable regulations such as the Endangered Species Act and the Archeological Resources Protection Act under 36CFR228.112(c). The operator is also required under 36CFR228.108(c) to minimize or prevent damage to surface resources. The Carson National Forest Management Plan states that surface resource impacts will be minimized when administering mineral resources.

The following conditions apply which require an unorthodox location:

52M Archeological resources prevent locating the well in an orthodox location.

2A,

39M,46M Topography prevents locating the well in an orthodox location.

46M Threatened/endangered species concerns prevent locating the well in an orthodox location.

52M,

39M,46M Prevention of unnecessary resource damage requires the location be unorthodox. (Such as a previously disturbed area or existing road available outside the drilling window.)

Thank you for your cooperation in this matter.

Don Case
Acting District Ranger



Caring for the Land and Serving People

FS-6200-28b(3/92)