

NSL 8/13/97

BURLINGTON RESOURCES

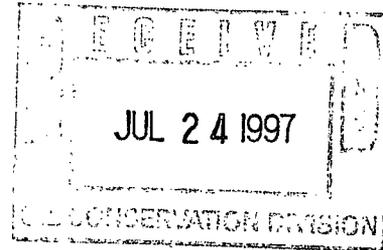
SAN JUAN DIVISION

July 24, 1997

Sent Federal Express

Mr. William LeMay
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: San Juan 28-6 Unit #98M
450'FNL, 990'FWL Section 3, T-27-N, R-6-W, Rio Arriba County, New Mexico
API # 30-039-(not yet assigned)



Dear Mr. LeMay:

Burlington Resources is applying for administrative approval of a non-standard location for the above location in both the Mesa Verde and Dakota formations. This application for the referenced location is due to terrain, the presence of archaeology and at the request of the Bureau of Land Management.

The following attachments are for your review:

1. Application for Permit to Drill.
2. Completed C-102 at referenced location.
3. Offset operators/owners plat - Burlington is the offset operator
4. 7.5 minute topographic map showing the orthodox windows, and enlargement of the map to define topographic features.

We appreciate your earliest consideration of this application.

Sincerely,

Peggy Bradfield
Regulatory/Compliance Administrator

xc: Bureau of Land Management
NMOCD - Aztec District Office

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-079051 Unit Reporting Number 891001051B - Dk 8910010510 - MV	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator BURLINGTON RESOURCES Oil & Gas Company	7. Unit Agreement Name San Juan 28-6 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 28-6 Unit 9. Well Number 98M	
4. Location of Well 450' FNL, 990' FWL Latitude 36° 36.6, Longitude 107° 27.6	10. Field, Pool, Wildcat Blanco Mesa Verde/ Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) Sec 3, T-27-N, R-6-W API # 30-039-	
14. Distance in Miles from Nearest Town 7 miles to Gobernador	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 450'	17. Acres Assigned to Well 320.84 W/2; 321.12 N/2	
16. Acres in Lease	18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 1300'	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 1300'	19. Proposed Depth 7910'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6693' GR	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u><i>Debra Bradfield</i></u> Regulatory/Compliance Administrator	<u>7-11-97</u> Date	

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

Archaeological Report to be submitted by Arboles Contract Archaeology
Threatened and Endangered Species Report to be submitted
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

District I
 PO Box 1989, Hobbs, NM 88241-1989
 District II
 PO Drawer 00, Artesa, NM 88211-0719
 District III
 1000 Rio Bravo 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
 Revised February 21
 Instructions o
 Submit to Appropriate District
 State Lease - 4
 Fee Lease - 3

AMENDED RE

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-	Pool Code 72319/71599	Pool Name Blanco Mesaverde/Basin Dakota
Property Code 7462	Property Name San Juan 28-6 Unit	Well Name 98M
OGRID No. 14538	Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	Elevation 6693'

10 Surface Location

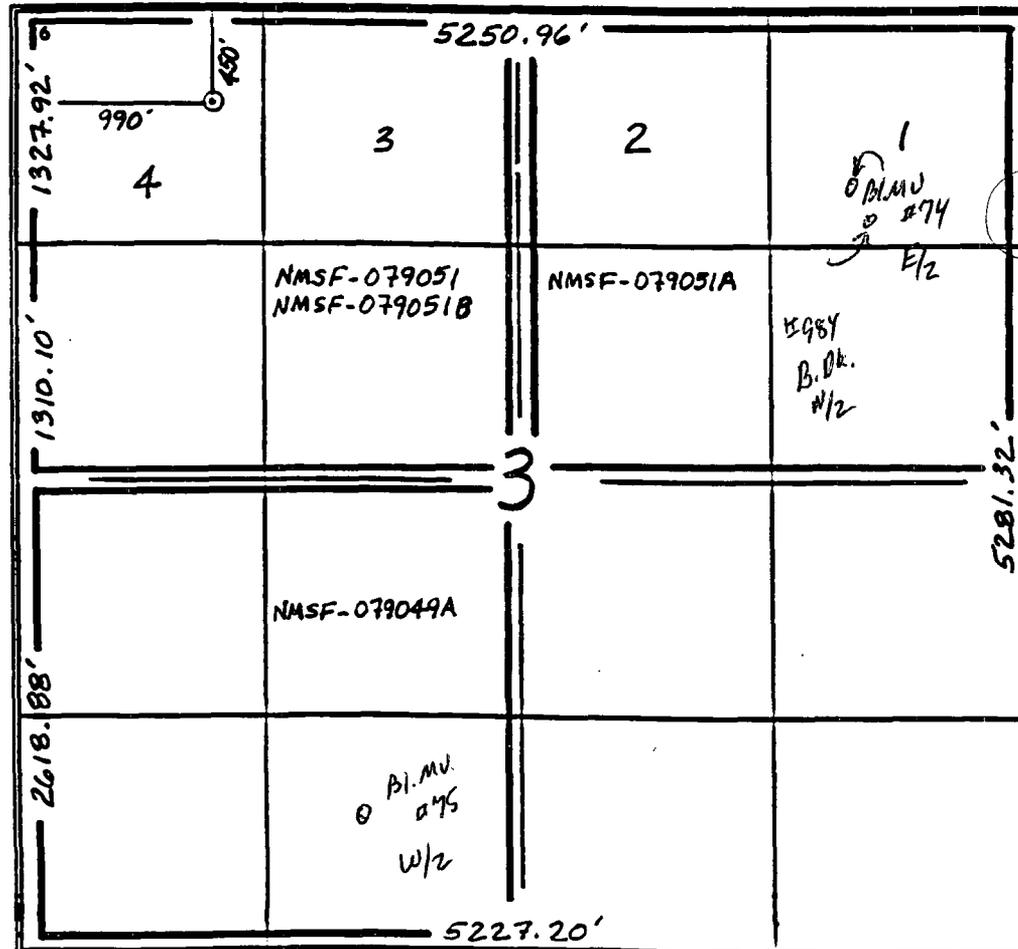
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	3	27-N	6-W		450	North	990	West	R.A.

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-W 320.84 DK-N 321.12	13 Joint or Infill 2	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



17 OPERATOR CERTIFICATE

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

Peggy Bradford
 Signature
 Peggy Bradford
 Printed Name
 Regulatory Administrator
 Title
 7-11-97
 Date

18 SURVEYOR CERTIFICATE

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

6/13/97
 Date of Survey
 Signature and Seal of Professional Surveyor

6857
 Certification Number

OPERATIONS PLAN

Well Name: San Juan 28-6 Unit #98M
Location: 450' FNL, 990' FWL Sec 3, T-27-N, R-6-W
 Rio Arriba County, NM
 Latitude 36° 36.6, Longitude 107° 27.6
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 6693' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	2704'	
Ojo Alamo	2704'	3070'	aquifer
Fruitland	3070'	2455'	gas
Pictured Cliffs	3455'	3585'	gas
Lewis	3585'	3813'	gas
Intermediate TD	3685'		
Mesa Verde	3813'	4377'	gas
Chacra	4377'	5083'	
Massive Cliff House	5083'	5195'	gas
Menefee	5195'	5615'	gas
Massive Point Lookout	5615'	6823'	gas
Gallup	6823'	7555'	gas
Greenhorn	7555'	7660'	gas
Graneros	7660'	7772'	gas
Dakota	7772'		gas
TD (4 1/2" liner)	7910'		

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
200-3685'	LSND	8.4-9.0	30-60	no control
3685-7910'	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>Csq. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 200'	9 5/8"	32.3#	WC-50
8 3/4"	0' - 3685'	7"	20.0#	J-55
6 1/4"	3585' - 6855'	4 1/2"	10.5#	J-55
6 1/4"	6855' - 7910'	4 1/2"	11.6#	J-55

Tubing Program:

0' - 7910' 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 12 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/298 sx Class "B" w/3% medisilicate, 10# gilsonite/sx and 1/2# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% calcium chloride, 2% gel, 1/2# flocele/sx and 10# gilsonite/sx (969 cu.ft. of slurry, 75% excess to circulate to surface.) WOC minimum of 12 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.

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 3070'. Two turbolating centralizers at the base of the Ojo Alamo at 3070'. 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 105 sx 65/35 Class "B" poz with 6% gel, 5# gilsonite/sx and 1/4# flocele/sx. Tail with 305 sx 50/50 Class "B" Poz with 2% gel, 1/4# flocele/sx, 5# gilsonite/sx, and 0.4% fluid loss additive (599 cu.ft., 35% 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 liner top can then be pressure tested to ensure a seal between the liner top and the 7" casing has been achieved. The test pressure shall be the maximum anticipated pressure to which the seal will be exposed (700 psi for the Mesa Verde and 2500 psi for the Dakota). 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 is dedicated to the Mesa Verde and the north half is dedicated to the Dakota in this well.
- This gas is dedicated.

San Weeks
Drilling Engineer

7/14/97
Date

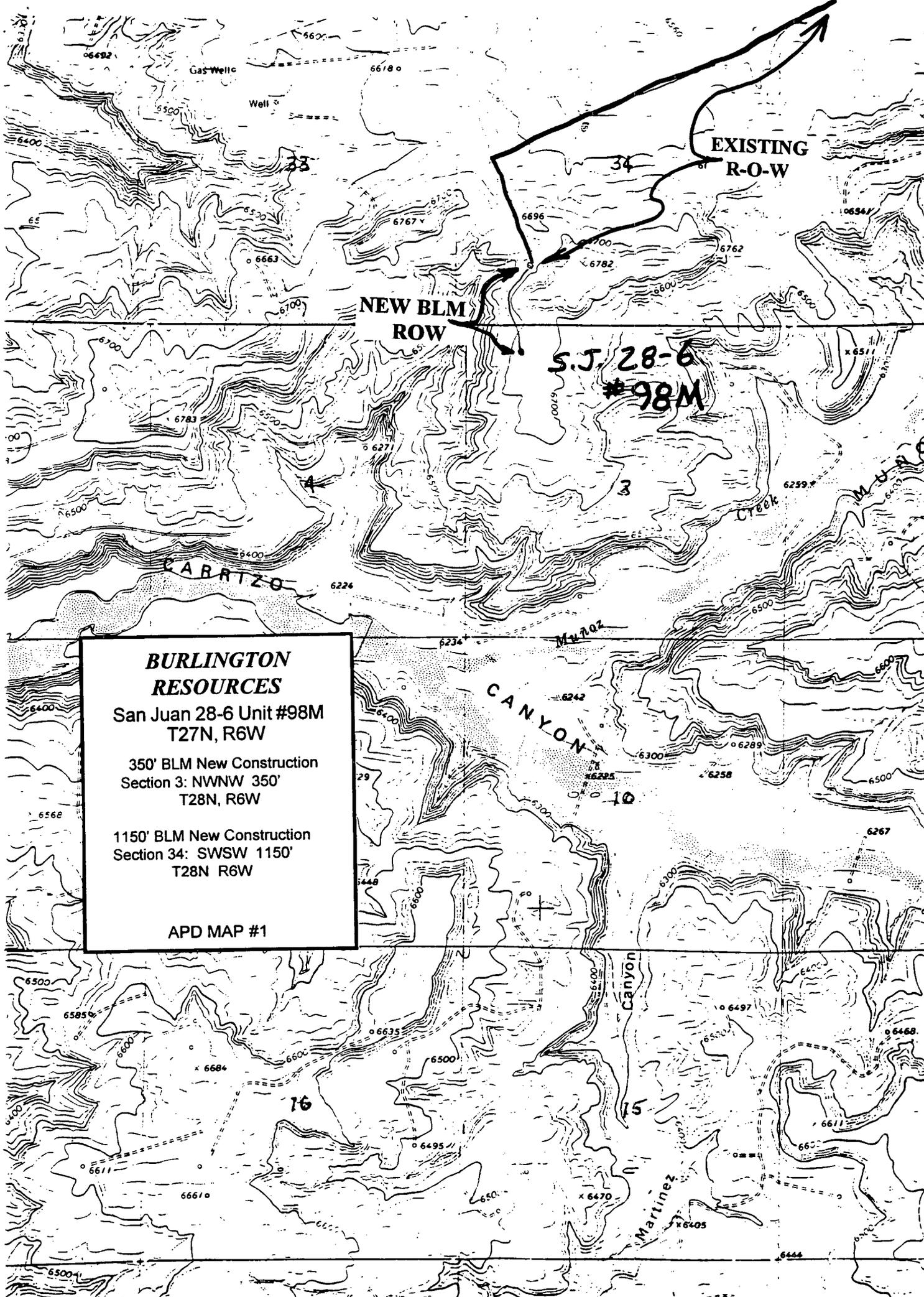
BURLINGTON RESOURCES

San Juan 28-6 Unit #98M
Multi-Point Surface Use Plan

1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. The required new access road is shown on Map No. 1. The gradient, shoulder, crowning and other design elements will meet or exceed those specified by the responsible government agency. The new access road surface will not exceed twenty feet (20') in width. No additional turnarounds or turnouts will be required. Upon completion of the project, the access road will be adequately drained to control soil erosion. Approximately 1500' of access road will be constructed. Pipelines are indicated on Map No. 1A.
3. Location of Existing Wells - Refer to Map No. 1A.
4. Location of Existing and/or Proposed Facilities if Well is Productive -
 - a. On the Well Pad - Refer to Plat No. 1, anticipated production facilities plat.
 - b. Off the Well Pad - Anticipated pipeline facilities as shown on the attached plat from El Paso Field Service.
5. Location and Type of Water Supply - Water will be hauled by truck for the proposed project and will be obtained San Juan 28-6 Water Well located SW/4 Section 23, T-28-N, R-6-W, New Mexico.
6. Source of Construction Materials - If construction materials are required for the proposed project, such materials will be obtained from a commercial quarry.
7. Methods of Handling Waste Materials - All garbage and trash materials will be removed from the site for proper disposal. A portable toilet will be provided for human waste and serviced in a proper manner. If liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying waste materials into the watershed. Reserve pits will be lined as needed with either 12 mil bio-degradable plastic liner or a bentonite liner. All earthen pits will be so constructed as to prevent leakage from occurring; no earthen pit will be located on natural drainage. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if so generated.
8. Ancillary Facilities - None anticipated.
9. Wellsite Layout - Refer to the location diagram and to the wellsite cut and fill diagram (Figure No. 4). The blow pit will be constructed with a 2'/160' grade to allow positive drainage to the reserve pit and prevent standing liquids in the blow pit.

10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operations will be performed during the time period set forth by the responsible government agency. The permanent location facilities will be painted as designated by the responsible government agency.
11. Surface Ownership - Bureau of Land Management
12. Other Information - Environmental stipulations as outlined by the responsible government agency will be adhered to. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
13. Operator's Representative and Certification - Burlington Resources Oil & Gas Company Regional Drilling Manager, Post Office Box 4289, Farmington, NM 87499, telephone (505) 326-9700. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan, are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Burlington Resources Oil and Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.


Regulatory/Compliance Administrator Date



**BURLINGTON
RESOURCES**
San Juan 28-6 Unit #98M
T28N, R6W

350' BLM New Construction
Section 3: NWNW 350'
T28N, R6W

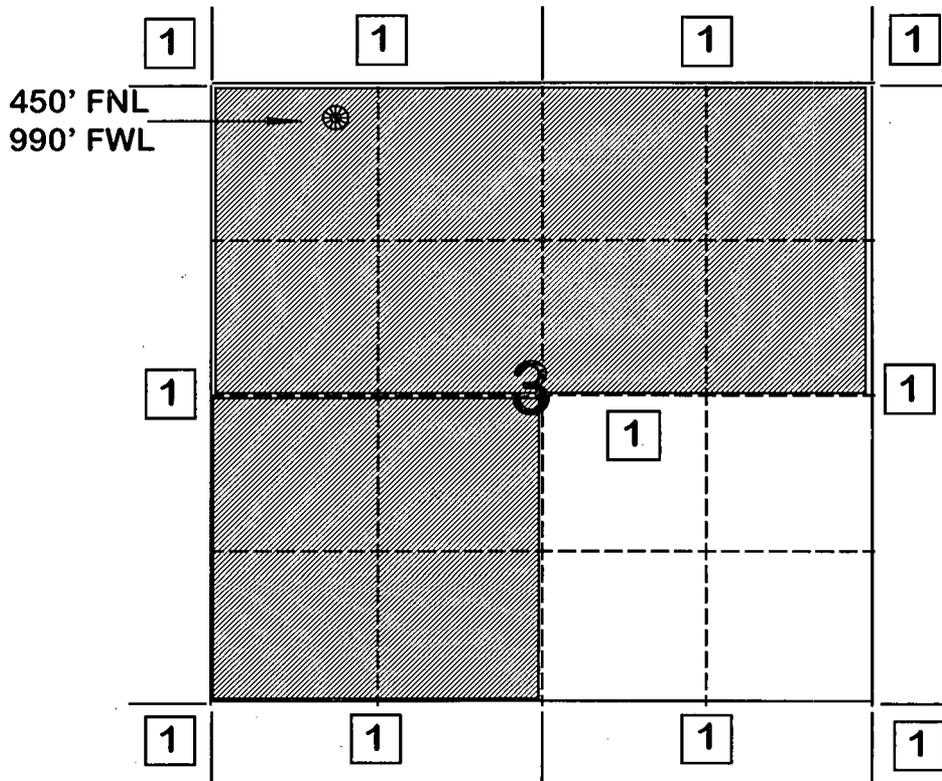
1150' BLM New Construction
Section 34: SWSW 1150'
T28N R6W

APD MAP #1

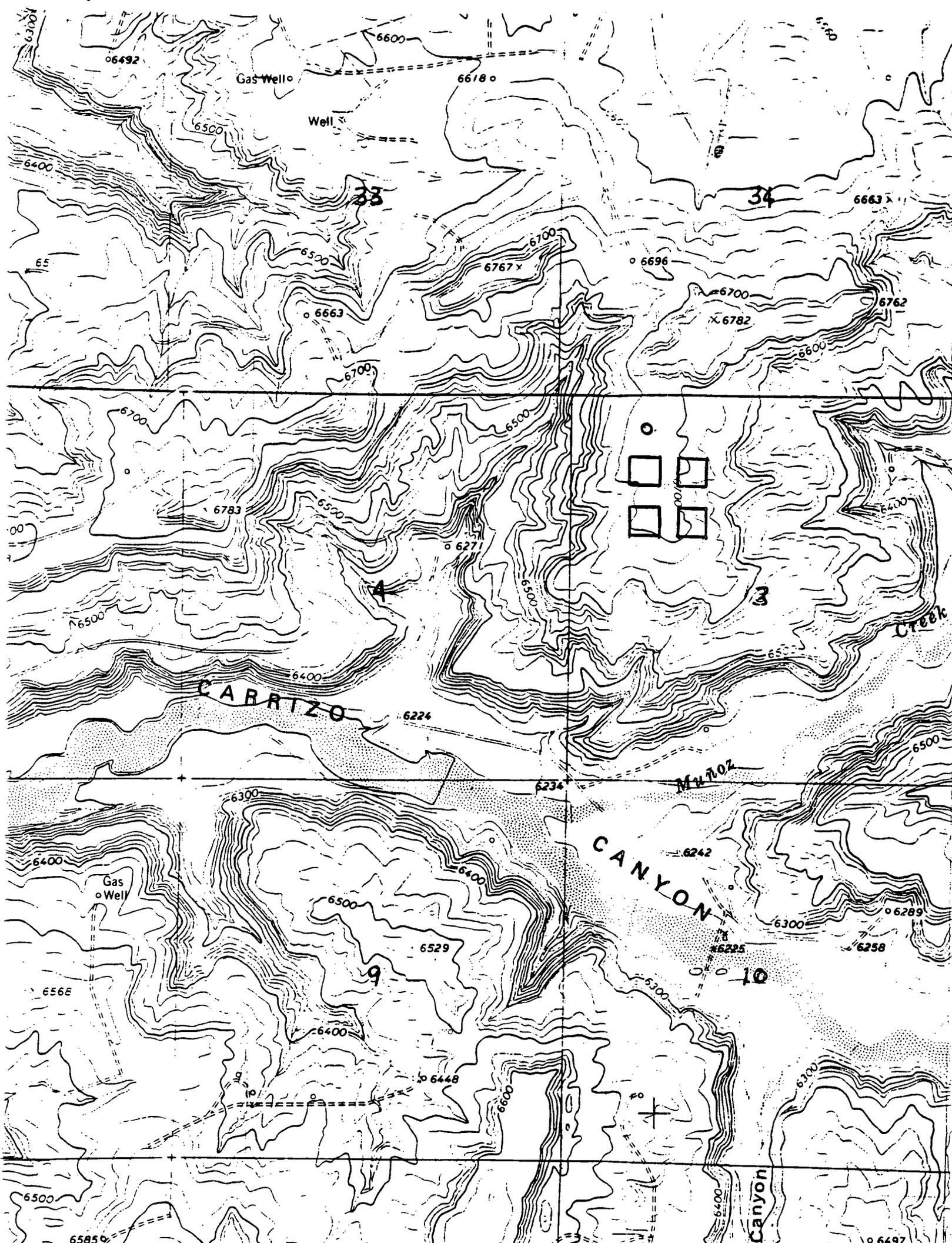
BURLINGTON RESOURCES OIL AND GAS COMPANY

**San Juan 28-6 Unit #98M
OFFSET OPERATOR \ OWNER PLAT
Nonstandard Location
Mesaverde (W/2)/Dakota (N/2) Formations Well**

Township 27 North, Range 6 West



1) Burlington Resources Oil and Gas Company



Sec : 03 Twp : 27N Rng : 06W Section Type : NORMAL

4 40.49 Federal owned U	3 40.35 Federal owned U	2 40.21 Federal owned U	1 40.07 Federal owned U A A
E 40.00 Federal owned U	F 40.00 Federal owned U	G 40.00 Federal owned U	H 40.00 Federal owned U

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06
PF07 BKWD PF08 FWD PF09 PRINT PF10 SDIV PF11 PF12

$ \begin{array}{r} 80.35 \\ 80.49 \\ \hline 160.84 \\ 16 \\ \hline 320.84 \end{array} $	$ \begin{array}{r} 80.07 \\ 80.21 \\ \hline 160.28 \\ 160.84 \\ \hline 321.12 \end{array} $
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Sec : 03 Twp : 27N Rng : 06W Section Type : NORMAL

L 40.00 Federal owned U	K 40.00 Federal owned U	J 40.00 Federal owned U	I 40.00 Federal owned U
M 40.00 Federal owned U	N 40.00 Federal owned U A A	O 40.00 Federal owned U	P 40.00 Federal owned U A

PF01 HELP
PF07 BKWD

PF02
PF08 FWD

PF03 EXIT
PF09 PRINT

PF04 GoTo
PF10 SDIV

PF05
PF11

PF06
PF12

Mike Stogner

From: Frank Chavez
Sent: Monday, August 11, 1997 10:54 AM
To: Mike Stogner
Subject: RE: Burlington

This is OK.

From: Mike Stogner
Sent: Friday, August 08, 1997 4:50 PM
To: Kathy Valdes
Cc: Ernie Busch; Frank Chavez
Subject: Burlington

Draft Administrative Order for the San Juan 28-6 Unit #98-M to be drilled 450' FNL & 990' FWL (Lot 4/Unit D) Sec. 3-T27N-R6W:

Mike Stogner

From: Ernie Busch
Sent: Tuesday, August 12, 1997 1:01 PM
To: Mike Stogner
Subject: RE: Burlington
Importance: High

looks good

From: Mike Stogner
Sent: Friday, August 08, 1997 4:50 PM
To: Kathy Valdes
Cc: Ernie Busch; Frank Chavez
Subject: Burlington

Draft Administrative Order for the San Juan 28-6 Unit #98-M to be drilled 450' FNL & 990' FWL (Lot 4/Unit D) Sec. 3-T27N-R6W:

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