

|                 |                 |             |           |          |
|-----------------|-----------------|-------------|-----------|----------|
| DATE IN 4/18/00 | SUSPENSE 5/8/00 | ENGINEER DC | LOGGED KV | TYPE DHC |
|-----------------|-----------------|-------------|-----------|----------|

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
- Engineering Bureau -

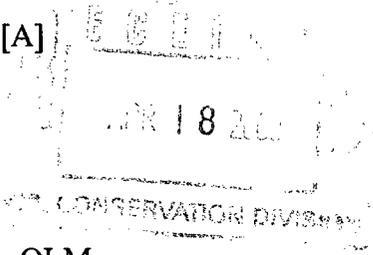
2734

**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

- [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
- [DD-Directional Drilling] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]



[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Directional Drilling  
NSL NSP DD SD

Check One Only for [B] and [C]

- [B] Commingling - Storage - Measurement  
X DHC CTB PLC PC OLS OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
WFX PMX SWD IPI EOR PPR

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

- [A] Working, Royalty or Overriding Royalty Interest Owners
- [B] Offset Operators, Leaseholders or Surface Owner
- [C] Application is One Which Requires Published Legal Notice
- [D] X Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Peggy Cole

*Peggy Cole*

Regulatory/Compliance Administrator

Print or Type Name

Signature

Title

Date

**DISTRICT I**

1625 N. French Dr., Hobbs, NM 88240

**DISTRICT II**

811 South First St., Artesia, NM 88210

**DISTRICT III**

1000 Rio Brazos Rd, Aztec, NM 87410

**DISTRICT IV**

2040 S. Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

**OIL CONSERVATION DIVISION**

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429

**APPLICATION FOR DOWNHOLE COMMINGLING**

Form C-107-A  
Revised March 17, 1999

APPROVAL PROCESS:

Administrative  Hearing

EXISTING WELLBORE

YES  NO

**BURLINGTON RESOURCES OIL & GAS COMPANY**

PO Box 4289, Farmington, NM 87499

Operator

Address

San Juan 28-6 Unit

#77

K, Sec. 2, T27N, R6W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 7462 API NO. 30-039-07182 Federal  State  (and/or) Fee

| The following facts are submitted in support of downhole commingling:   | Upper Zone                                | Intermediate Zone | Lower Zone                                |
|---|---|-------------------|---|
| 1. Pool Name and Pool Code  | South Blanco Pictured Cliffs - 72439      |                   | Blanco Mesaverde - 72319                  |
| 2. Top and Bottom of Pay Section (Perforations)   | 3250'-3314'                               |                   | 4892'-5520'                               |
| 3. Type of production (Oil or Gas)  | Gas                                       |                   | Gas                                       |
| 4. Method of Production (Flowing or Artificial Lift)  | Flowing                                   |                   | Flowing                                   |
| 5. Bottomhole Pressure<br>Oil Zones - Artificial Lift:<br>Gas & Oil - Flowing:<br>All Gas Zones:<br>Estimated Current<br>Measured Current<br>Estimated Or Measured Original   | a. 238 psia (Current)                     | a.                | a. 390 psia                               |
|   | b. 1137 psia (Original)                   | b.                | b. 1081 psia                              |
| 6. Oil Gravity (EAPI) or Gas BTU Content  | BTU 1125                                  |                   | BTU 1233                                  |
| 7. Producing or Shut-In?  | Producing                                 |                   | Producing                                 |
| Production Marginal? (yes or no)<br><br>* If Shut-In, give date and oil/gas/water rates of last production<br><br>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data<br><br>* If Producing, give date and oil/gas/water rates of recent test (within 60 days) | Yes                                       |                   | Yes                                       |
|   | Date:<br>Rates:                           | Date:<br>Rates:   | Date:<br>Rates:                           |
|   | Date: 2/00<br>Rates: 28 mcf/d<br>0.0 bopd | Date:<br>Rates:   | Date: 2/00<br>Rates: 58 mcf/d<br>0.0 bopd |
| 8. Fixed Percentage Allocation Formula - % for each zone (total of %'s to equal 100%)   | Oil: 50 % Gas: 35 %                       | Oil: % Gas: %     | Oil: 50 % Gas: 65 %                       |

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones?  Yes  No  
If not, have all working, overriding, and royalty interests been notified by certified mail?  Yes  No

11. Will cross-flow occur?  Yes  No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable.  Yes  No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other?  Yes  No

13. Will the value of production be decreased by commingling?  Yes  No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application.  Yes  No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). R-10696

**16. ATTACHMENTS:**

- \* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- \* Production curve for each zone for at least one year. (If not available, attach explanation.)
- \* For zones with no production history, estimated production rates and supporting data.
- \* Data to support allocation method or formula.
- \* Any additional statements, data, or documents required to support commingling.

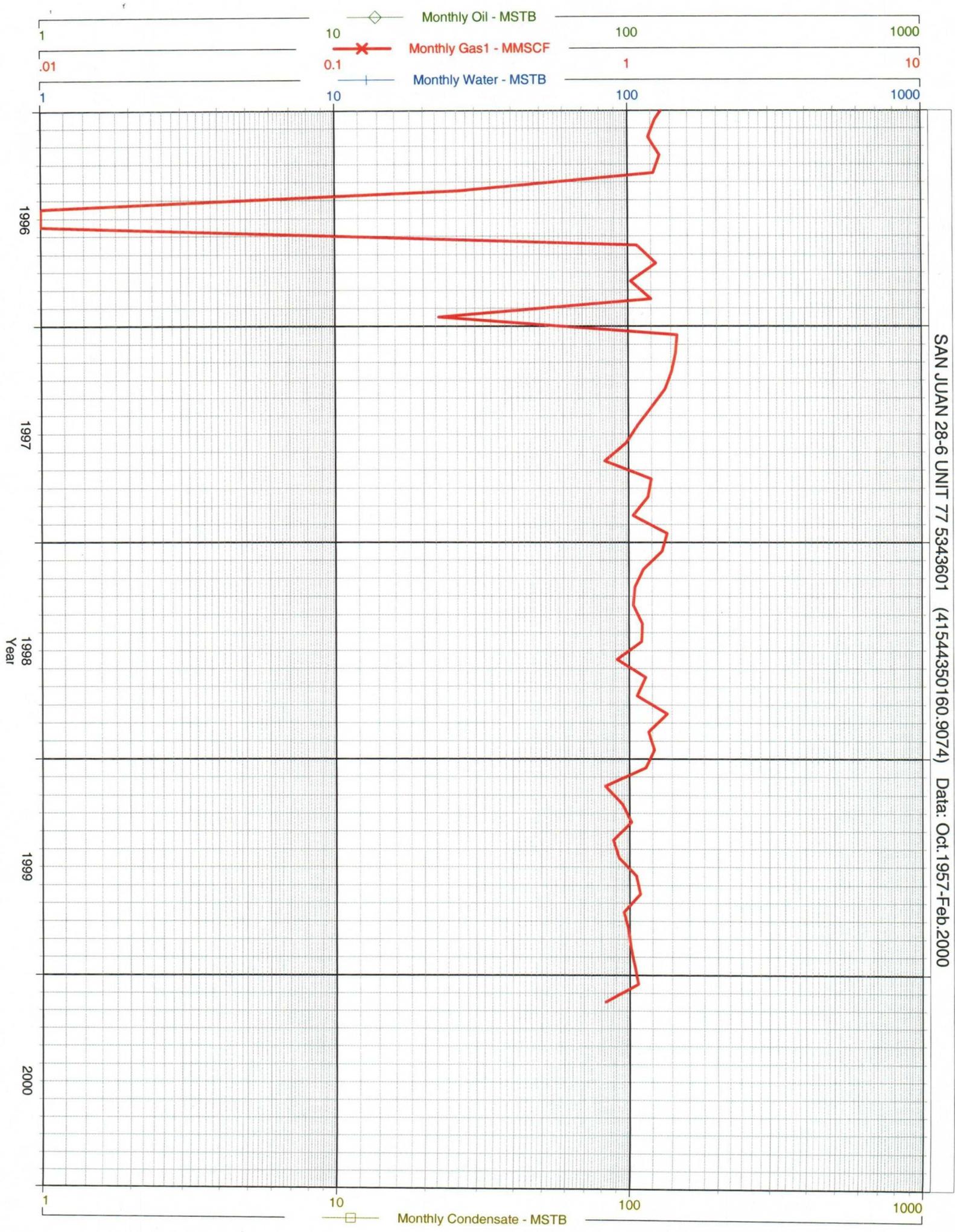
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

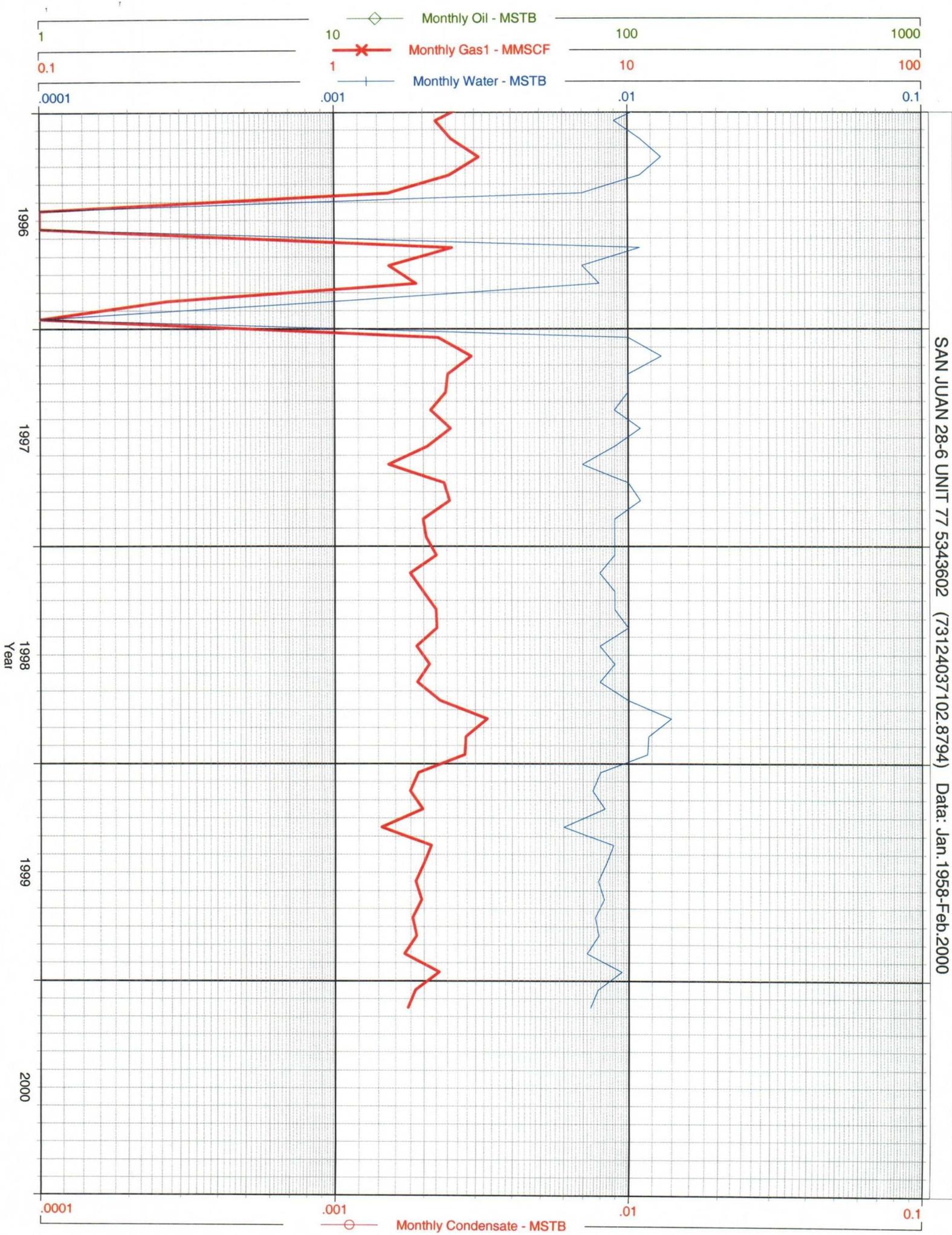
SIGNATURE Jennifer Dobson TITLE Operations Engineer DATE 4/13/00

TYPE OR PRINT NAME Jennifer Dobson TELEPHONE NO. (505) 326-9700

NCO

SAN JUAN 28-6 UNIT 77 5343601 (41544350160.9074) Data: Oct.1957-Feb.2000





SAN JUAN 28-6 UNIT 77 5343602 (73124037102.8794) Data: Jan.1998-Feb.2000

**San Juan 28-6 Unit #77  
Production Allocation**

**Gas**

|                                  |            |               |
|----------------------------------|------------|---------------|
| *Pictured Cliffs 3 month average | 35 Mcfd    | 35%           |
| *Mesaverde 3 month average       | 65 Mcfd    | 65%           |
| Total:                           | <u>100</u> | <u>100.0%</u> |

**Oil**

|                                  |          |     |
|----------------------------------|----------|-----|
| *Pictured Cliffs 3 month average | 0.0 Bopd | 50% |
| *Mesaverde 3 month average       | 0.0 Bopd | 50% |
| Total:                           | <u>0</u> |     |

\*Allocation Formula Basis: The fixed percentages are based on 3 month averages (12/99 - 02/00)

WELL LOCATION AND/OR GAS PRORATION PLAT

DATE APRIL 29, 1957

OPERATOR EL PASO NATURAL GAS COMPANY SAN JUAN 28-6 UNIT E-290-29

WELL NO. 77 (PM) SECTION 2 RANGE 27-N TOWNSHIP 6-N

LOCATED 1660 FEET FROM SOUTH END 1750 FEET FROM WEST END

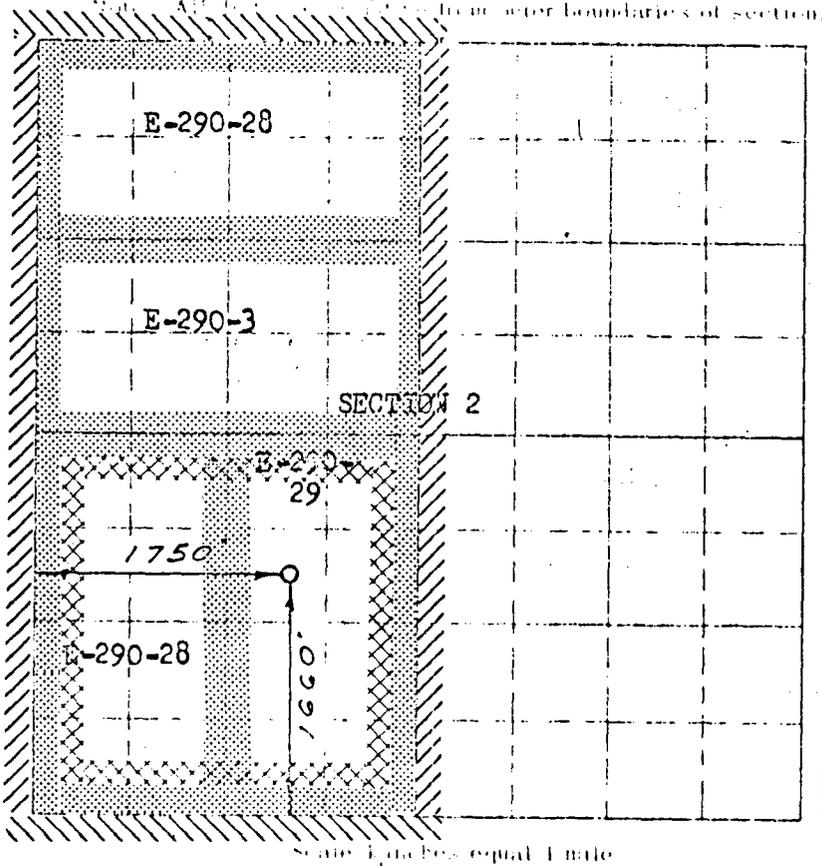
RIO ARriba DISTRICT 6485

LAND OWNERS P.C. & M.V. WILDCAT P.C. 160 ACRES P.C.

BLANCO M.V. 320 ACRES M.V.

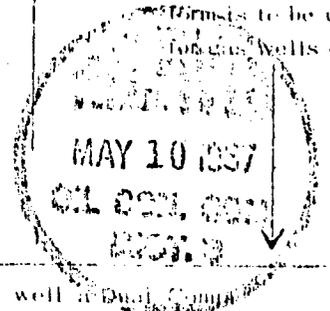
(1882 PLAT)

W 320.10



NOTE

This section of  
lands is to be used  
for gas wells only



This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed MARCH 19, 1957

C. O. Walker  
Registered Professional Engineer and/or Land Surveyor

1. Is this well a dual completion? Yes  No
2. If the answer to Question 1 is yes, are there any other dually completed wells within the dedicated acreage? Yes  No

Name D. C. Johnston  
Position Petroleum Engineer

Representing El Paso Natural Gas

Address Box 997, Farmington, N.M.

**San Juan 28-6 Unit #77**  
**Bottom Hole Pressures**  
**Flowing and Static BHP**  
**Cullender and Smith Method**

Version 1.0 3/13/94

| <b>Pictured Cliffs</b>   | <b>Mesaverde</b>          |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
|--|---------------------------|-------|----------------------|---|-----|------|------|------|------|---|---------------|-------|------------|------|-----------------------------|----|--------------------------------|-----|------------------|---|-------------------------|------|----------------------------|--------|---|-------------|-------|----------------------|---|-----|------|------|------|------|---|---------------|-------|------------|------|-----------------------------|----|--------------------------------|-----|------------------|---|-------------------------|-----|----------------------------|--------|
| <b><u>PC-Current</u></b>   | <b><u>MV-Current</u></b>  |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">GAS GRAVITY</td><td style="text-align: right; border-bottom: 1px solid black;">0.638</td></tr> <tr><td>COND. OR MISC. (C/M)</td><td style="text-align: right; border-bottom: 1px solid black;">M</td></tr> <tr><td>%N2</td><td style="text-align: right; border-bottom: 1px solid black;">0.24</td></tr> <tr><td>%CO2</td><td style="text-align: right; border-bottom: 1px solid black;">0.39</td></tr> <tr><td>%H2S</td><td style="text-align: right; border-bottom: 1px solid black;">0</td></tr> <tr><td>DIAMETER (IN)</td><td style="text-align: right; border-bottom: 1px solid black;">7.625</td></tr> <tr><td>DEPTH (FT)</td><td style="text-align: right; border-bottom: 1px solid black;">3282</td></tr> <tr><td>SURFACE TEMPERATURE (DEG F)</td><td style="text-align: right; border-bottom: 1px solid black;">60</td></tr> <tr><td>BOTTOMHOLE TEMPERATURE (DEG F)</td><td style="text-align: right; border-bottom: 1px solid black;">135</td></tr> <tr><td>FLOWRATE (MCFPD)</td><td style="text-align: right; border-bottom: 1px solid black;">0</td></tr> <tr><td>SURFACE PRESSURE (PSIA)</td><td style="text-align: right; border-bottom: 1px solid black;">221</td></tr> <tr><td>BOTTOMHOLE PRESSURE (PSIA)</td><td style="text-align: right; border: 1px solid black;">237.7</td></tr> </table>   | GAS GRAVITY               | 0.638 | COND. OR MISC. (C/M) | M | %N2 | 0.24 | %CO2 | 0.39 | %H2S | 0 | DIAMETER (IN) | 7.625 | DEPTH (FT) | 3282 | SURFACE TEMPERATURE (DEG F) | 60 | BOTTOMHOLE TEMPERATURE (DEG F) | 135 | FLOWRATE (MCFPD) | 0 | SURFACE PRESSURE (PSIA) | 221  | BOTTOMHOLE PRESSURE (PSIA) | 237.7  | <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">GAS GRAVITY</td><td style="text-align: right; border-bottom: 1px solid black;">0.642</td></tr> <tr><td>COND. OR MISC. (C/M)</td><td style="text-align: right; border-bottom: 1px solid black;">M</td></tr> <tr><td>%N2</td><td style="text-align: right; border-bottom: 1px solid black;">0.13</td></tr> <tr><td>%CO2</td><td style="text-align: right; border-bottom: 1px solid black;">1.35</td></tr> <tr><td>%H2S</td><td style="text-align: right; border-bottom: 1px solid black;">0</td></tr> <tr><td>DIAMETER (IN)</td><td style="text-align: right; border-bottom: 1px solid black;">2.375</td></tr> <tr><td>DEPTH (FT)</td><td style="text-align: right; border-bottom: 1px solid black;">5206</td></tr> <tr><td>SURFACE TEMPERATURE (DEG F)</td><td style="text-align: right; border-bottom: 1px solid black;">60</td></tr> <tr><td>BOTTOMHOLE TEMPERATURE (DEG F)</td><td style="text-align: right; border-bottom: 1px solid black;">150</td></tr> <tr><td>FLOWRATE (MCFPD)</td><td style="text-align: right; border-bottom: 1px solid black;">0</td></tr> <tr><td>SURFACE PRESSURE (PSIA)</td><td style="text-align: right; border-bottom: 1px solid black;">347</td></tr> <tr><td>BOTTOMHOLE PRESSURE (PSIA)</td><td style="text-align: right; border: 1px solid black;">390.1</td></tr> </table>  | GAS GRAVITY | 0.642 | COND. OR MISC. (C/M) | M | %N2 | 0.13 | %CO2 | 1.35 | %H2S | 0 | DIAMETER (IN) | 2.375 | DEPTH (FT) | 5206 | SURFACE TEMPERATURE (DEG F) | 60 | BOTTOMHOLE TEMPERATURE (DEG F) | 150 | FLOWRATE (MCFPD) | 0 | SURFACE PRESSURE (PSIA) | 347 | BOTTOMHOLE PRESSURE (PSIA) | 390.1  |
| GAS GRAVITY  | 0.638                     |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| COND. OR MISC. (C/M)   | M                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %N2  | 0.24                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %CO2   | 0.39                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %H2S   | 0                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| DIAMETER (IN)  | 7.625                     |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| DEPTH (FT)   | 3282                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| SURFACE TEMPERATURE (DEG F)  | 60                        |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| BOTTOMHOLE TEMPERATURE (DEG F)   | 135                       |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| FLOWRATE (MCFPD)   | 0                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| SURFACE PRESSURE (PSIA)  | 221                       |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| BOTTOMHOLE PRESSURE (PSIA)   | 237.7                     |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| GAS GRAVITY  | 0.642                     |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| COND. OR MISC. (C/M)   | M                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %N2  | 0.13                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %CO2   | 1.35                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %H2S   | 0                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| DIAMETER (IN)  | 2.375                     |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| DEPTH (FT)   | 5206                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| SURFACE TEMPERATURE (DEG F)  | 60                        |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| BOTTOMHOLE TEMPERATURE (DEG F)   | 150                       |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| FLOWRATE (MCFPD)   | 0                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| SURFACE PRESSURE (PSIA)  | 347                       |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| BOTTOMHOLE PRESSURE (PSIA)   | 390.1                     |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| <b><u>PC-Original</u></b>  | <b><u>MV-Original</u></b> |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">GAS GRAVITY</td><td style="text-align: right; border-bottom: 1px solid black;">0.639</td></tr> <tr><td>COND. OR MISC. (C/M)</td><td style="text-align: right; border-bottom: 1px solid black;">M</td></tr> <tr><td>%N2</td><td style="text-align: right; border-bottom: 1px solid black;">0.45</td></tr> <tr><td>%CO2</td><td style="text-align: right; border-bottom: 1px solid black;">0.38</td></tr> <tr><td>%H2S</td><td style="text-align: right; border-bottom: 1px solid black;">0</td></tr> <tr><td>DIAMETER (IN)</td><td style="text-align: right; border-bottom: 1px solid black;">7.625</td></tr> <tr><td>DEPTH (FT)</td><td style="text-align: right; border-bottom: 1px solid black;">3282</td></tr> <tr><td>SURFACE TEMPERATURE (DEG F)</td><td style="text-align: right; border-bottom: 1px solid black;">60</td></tr> <tr><td>BOTTOMHOLE TEMPERATURE (DEG F)</td><td style="text-align: right; border-bottom: 1px solid black;">135</td></tr> <tr><td>FLOWRATE (MCFPD)</td><td style="text-align: right; border-bottom: 1px solid black;">0</td></tr> <tr><td>SURFACE PRESSURE (PSIA)</td><td style="text-align: right; border-bottom: 1px solid black;">1047</td></tr> <tr><td>BOTTOMHOLE PRESSURE (PSIA)</td><td style="text-align: right; border: 1px solid black;">1137.4</td></tr> </table> | GAS GRAVITY               | 0.639 | COND. OR MISC. (C/M) | M | %N2 | 0.45 | %CO2 | 0.38 | %H2S | 0 | DIAMETER (IN) | 7.625 | DEPTH (FT) | 3282 | SURFACE TEMPERATURE (DEG F) | 60 | BOTTOMHOLE TEMPERATURE (DEG F) | 135 | FLOWRATE (MCFPD) | 0 | SURFACE PRESSURE (PSIA) | 1047 | BOTTOMHOLE PRESSURE (PSIA) | 1137.4 | <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">GAS GRAVITY</td><td style="text-align: right; border-bottom: 1px solid black;">0.633</td></tr> <tr><td>COND. OR MISC. (C/M)</td><td style="text-align: right; border-bottom: 1px solid black;">M</td></tr> <tr><td>%N2</td><td style="text-align: right; border-bottom: 1px solid black;">0.36</td></tr> <tr><td>%CO2</td><td style="text-align: right; border-bottom: 1px solid black;">1.35</td></tr> <tr><td>%H2S</td><td style="text-align: right; border-bottom: 1px solid black;">0</td></tr> <tr><td>DIAMETER (IN)</td><td style="text-align: right; border-bottom: 1px solid black;">2.375</td></tr> <tr><td>DEPTH (FT)</td><td style="text-align: right; border-bottom: 1px solid black;">5206</td></tr> <tr><td>SURFACE TEMPERATURE (DEG F)</td><td style="text-align: right; border-bottom: 1px solid black;">60</td></tr> <tr><td>BOTTOMHOLE TEMPERATURE (DEG F)</td><td style="text-align: right; border-bottom: 1px solid black;">150</td></tr> <tr><td>FLOWRATE (MCFPD)</td><td style="text-align: right; border-bottom: 1px solid black;">0</td></tr> <tr><td>SURFACE PRESSURE (PSIA)</td><td style="text-align: right; border-bottom: 1px solid black;">954</td></tr> <tr><td>BOTTOMHOLE PRESSURE (PSIA)</td><td style="text-align: right; border: 1px solid black;">1081.3</td></tr> </table> | GAS GRAVITY | 0.633 | COND. OR MISC. (C/M) | M | %N2 | 0.36 | %CO2 | 1.35 | %H2S | 0 | DIAMETER (IN) | 2.375 | DEPTH (FT) | 5206 | SURFACE TEMPERATURE (DEG F) | 60 | BOTTOMHOLE TEMPERATURE (DEG F) | 150 | FLOWRATE (MCFPD) | 0 | SURFACE PRESSURE (PSIA) | 954 | BOTTOMHOLE PRESSURE (PSIA) | 1081.3 |
| GAS GRAVITY  | 0.639                     |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| COND. OR MISC. (C/M)   | M                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %N2  | 0.45                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %CO2   | 0.38                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %H2S   | 0                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| DIAMETER (IN)  | 7.625                     |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| DEPTH (FT)   | 3282                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| SURFACE TEMPERATURE (DEG F)  | 60                        |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| BOTTOMHOLE TEMPERATURE (DEG F)   | 135                       |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| FLOWRATE (MCFPD)   | 0                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| SURFACE PRESSURE (PSIA)  | 1047                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| BOTTOMHOLE PRESSURE (PSIA)   | 1137.4                    |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| GAS GRAVITY  | 0.633                     |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| COND. OR MISC. (C/M)   | M                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %N2  | 0.36                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %CO2   | 1.35                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| %H2S   | 0                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| DIAMETER (IN)  | 2.375                     |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| DEPTH (FT)   | 5206                      |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| SURFACE TEMPERATURE (DEG F)  | 60                        |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| BOTTOMHOLE TEMPERATURE (DEG F)   | 150                       |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| FLOWRATE (MCFPD)   | 0                         |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| SURFACE PRESSURE (PSIA)  | 954                       |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |
| BOTTOMHOLE PRESSURE (PSIA)   | 1081.3                    |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |      |                            |        |   |             |       |                      |   |     |      |      |      |      |   |               |       |            |      |                             |    |                                |     |                  |   |                         |     |                            |        |

# Gas Meter Vol. History (Act.)

Friday, January 01, 1999 Through Sunday, April 30, 2000

Select By : Gas Meters

Pressure Base : 15.025

Units :

Report Number : R\_040

Sort By :

Rounded (y/n) : No

Page No : 1  
 Print Date : 04/06/2000, 8:32:33 PM

| Meter  | Volume    | Date  | Ticket #         | Volume           | Heat Value       | Period           |            | Disp.      | Prod. | Purchaser | Gatherer            |                     |
|--|-----------|-------|------------------|------------------|------------------|------------------|------------|------------|-------|-----------|---------------------|---------------------|
|  |           |       |                  |                  |                  | Start            | End        |            |       |           |                     |                     |
| SAN JUAN 28-6 UNIT<br><i>Returned Cliffs</i> | 77        | 72072 | 6100000303       | 1,138.20         | 1,339.30         | 01/01/1999       | 01/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 2200000776       | 827.43           | 974.13           | 02/01/1999       | 02/28/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0300003508       | 946.05           | 1,112.85         | 03/01/1999       | 03/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0400001640       | 1,016.64         | 1,190.37         | 04/01/1999       | 04/30/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0500001644       | 880.37           | 1,030.23         | 05/01/1999       | 05/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0600000561       | 920.56           | 1,077.15         | 06/01/1999       | 06/30/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0700000674       | 1,054.87         | 1,235.25         | 07/01/1999       | 07/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0800000211       | 1,088.21         | 1,274.01         | 08/01/1999       | 08/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0900000016       | 956.84           | 1,119.99         | 09/01/1999       | 09/30/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 1000003339       | 991.15           | 1,159.77         | 10/01/1999       | 10/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 1100003104       | 1,010.76         | 1,183.23         | 11/01/1999       | 11/30/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 1200000722       | 1,040.17         | 1,217.91         | 12/01/1999       | 12/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  | Totals -- | 1999  |                  | <b>11,871.25</b> |                  | <b>13,914.19</b> |            |            | 20    | 100       |                     |                     |
|  | Totals -- | 2000  |                  | 826.45           | 966.99           | 1,251.57         | 01/01/2000 | 01/31/2000 | 20    | 100       |                     | WILLIAMS FIELD SERV |
|  | Totals -- | 2000  |                  | <b>1,896.03</b>  | <b>2,218.56</b>  |                  |            |            | 20    | 100       |                     | WILLIAMS FIELD SERV |
| Totals --                                    | 2000      |       | <b>13,767.28</b> | <b>16,132.75</b> |                  |                  |            | 20         | 100   |           |                     |                     |
| Totals -- SAN JUAN 28-6 UNIT                 | 77        | 72073 | 6100000304       | 1,832.30         | 2,371.56         | 01/01/1999       | 01/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 2200000762       | 1,724.46         | 2,231.82         | 02/01/1999       | 02/28/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0300003509       | 1,897.01         | 2,476.63         | 03/01/1999       | 03/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0400001641       | 1,355.85         | 1,739.15         | 04/01/1999       | 04/30/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0500001643       | 2,035.24         | 2,611.27         | 05/01/1999       | 05/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0600000560       | 1,921.52         | 2,465.41         | 06/01/1999       | 06/30/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0700000675       | 1,796.03         | 2,304.24         | 07/01/1999       | 07/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0800000212       | 1,881.32         | 2,413.38         | 08/01/1999       | 08/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 0900000015       | 1,752.89         | 2,249.16         | 09/01/1999       | 09/30/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 1000003351       | 1,802.89         | 2,312.40         | 10/01/1999       | 10/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 1100003105       | 1,638.19         | 2,101.26         | 11/01/1999       | 11/30/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
|  |           |       | 1200000721       | 2,182.29         | 2,799.97         | 12/01/1999       | 12/31/1999 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
| Totals --                                    | 1999      |       | <b>21,820.01</b> |                  | <b>28,076.25</b> |                  |            | 20         | 100   |           |                     |                     |
| Totals --                                    | 2000      |       | 1,787.21         | 2,293.02         | 2,163.48         | 01/01/2000       | 01/31/2000 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
| Totals --                                    | 2000      |       | <b>3,473.44</b>  | <b>4,456.50</b>  |                  |                  |            | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
| Totals -- SAN JUAN 28-6 UNIT                 | 77        | 72073 | 7400000351       | 25,293.44        | 32,532.75        | 02/01/2000       | 02/29/2000 | 20         | 100   |           | WILLIAMS FIELD SERV |                     |
| Totals --                                    | 2000      |       |                  |                  |                  |                  |            |            |       |           |                     |                     |
| Report Totals                                |           |       |                  | 39,060.72        | 48,665.50        |                  |            |            |       |           |                     |                     |

**San Juan 28-6 Unit #77**  
**5343601/5343602**  
**Pictured Cliffs/Mesaverde**

**PICTURED CLIFFS**

| <b>PRESSURE DATA</b> |                |              |
|----------------------|----------------|--------------|
| <b>Date</b>          | <b>Gas Cum</b> | <b>Press</b> |
| 12/05/1957           | 0              | 1047         |
| 12/17/1999           | 910715         | 221          |

**MESAVERDE**

| <b>PRESSURE DATA</b> |                |              |
|----------------------|----------------|--------------|
| <b>Date</b>          | <b>Gas Cum</b> | <b>SIWHP</b> |
| 12/05/1957           | 0              | 954          |
| 12/17/1999           | 941096         | 347          |

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 11628  
ORDER NO. R-10696

APPLICATION OF BURLINGTON RESOURCES  
OIL & GAS COMPANY FOR THE ESTABLISHMENT  
OF A DOWNHOLE COMMINGLING "REFERENCE  
CASE" FOR ITS SAN JUAN 28-6 UNIT PURSUANT  
TO DIVISION RULE 303.E. AND THE ADOPTION  
OF SPECIAL ADMINISTRATIVE RULES THEREFOR,  
SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 17 and November 7, 1996, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this 12th day of November, 1996, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Burlington Resources Oil & Gas Company (Burlington), pursuant to the provisions of Division Rule 303.E., seeks to establish a downhole commingling "reference case" to provide exceptions for (a) marginal economic criteria, (b) pressure criteria, (c) allocation formulas and (d) modification of notification rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Fruitland Coal and Pictured Cliffs gas production within existing or future drilled wells within the San Juan 28-6 Unit, San Juan County, New Mexico.

(3) Division Rule No. 303.E., amended by Order No. R-10470-A, currently states:

- c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing a certain method of allocating production on Form C-107-A's subsequently filed for wells within the San Juan 28-6 Unit; and,
- d) establish a "reference case" or an administrative procedure for authorizing the downhole commingling of existing or future drilled wells within the San Juan 28-6 Unit without additional notice to each affected interest owner as required by Division Rule No. 303.D.

(7) In support of its request to except marginal economic criteria, the applicant presented geologic and engineering evidence and testimony which indicates that within the San Juan 28-6 Unit:

- a) the structure and thickness of the Dakota and Pictured Cliffs formations are very consistent;
- b) the average recoverable Dakota and Pictured Cliffs gas reserves underlying an undeveloped drill block are approximately 449 MMCFG and 186 MMCFG, respectively;
- c) the average initial producing rate for a newly drilled or recompleted Dakota and Pictured Cliffs gas well is approximately 254 MCFGD and 216 MCFGD, respectively; and,
- d) the estimated ultimate gas recoveries and initial producing rates from the Dakota and Pictured Cliffs formations are insufficient to justify drilling stand alone wells and/or dually completed wells to recover such gas reserves.

(8) The evidence and testimony presented by the applicant indicates that the Dakota and Pictured Cliffs formations within the San Juan 28-6 Unit should be properly classified as "marginal".

(9) In support of its request to except pressure criteria within the Dakota and Pictured Cliffs formations within the San Juan 28-6 Unit, the applicant presented engineering evidence and testimony which indicates that:

- c) providing notice to each interest owner within the San Juan 28-6 Unit of subsequent downhole comminglings is unnecessary and is an excessive burden on the applicant;
- d) the downhole commingling of wells within the San Juan 28-6 Unit Area will benefit working, royalty, and overriding royalty interest owners. In addition, the downhole commingling of wells within the San Juan 28-6 Unit should not violate the correlative rights of any interest owner;
- e) no interest owner appeared at the hearing in opposition to the establishment of a "reference case" or administrative procedure for notice.

(14) An administrative procedure should be established within the San Juan 28-6 Unit for obtaining approval for subsequent downhole commingled wells without notice to Unit interest owners, provided however that, all other provisions contained within Division Rule No. 303.C. are complied with.

(15) Approval of the proposed "reference cases" for marginal economic criteria, pressure criteria, allocation formulas and notice will lessen the burden on the applicant insofar as providing the data required pursuant to Division Rule No. 303.D. and Form C-107-A, will provide the applicant a streamlined method for obtaining downhole commingling approvals within the San Juan 28-6 Unit, and will not violate correlative rights.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Burlington Resources Oil & Gas Company to establish a "reference case" for (a) marginal economic criteria, (b) pressure criteria, (c) allocation formulas and (d) modification of notification rules on a unit-wide basis for downhole commingling of Dakota, Mesaverde, Fruitland Coal and Pictured Cliffs gas production within existing or future drilled wells within the San Juan 28-6 Unit, San Juan County, New Mexico, is hereby approved.