

## DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

## DISTRICT II

811 South First St., Artesia, NM 88210-2835

## DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1893

State of New Mexico  
Energy, Minerals and Natural Resources Department

## OIL CONSERVATION DIVISION

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429Form C-107-A  
New 3-12-96

## APPROVAL PROCESS :

☒ Administrative ☐ Hearing

## EXISTING WELLBORE

☒ YES ☐ NO

## APPLICATION FOR DOWNHOLE COMMINGLING

BURLINGTON RESOURCES OIL & GAS COMPANY  
OperatorPO Box 4289, Farmington, NM 87499  
Address

CAT DRAW

1E

C, Sec. 04, T30N, R05W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 14538 Property Code 18493 API NO. 30-039-2305500 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                                                                                                                                                                               | BLANCO MESAVERDE-72319                                                      |                                            | BASIN DAKOTA-71599                               |
| 2. Top and Bottom of Pay Section (Perforations)                                                                                                                                                          | 5435'-5756'                                                                 |                                            | 7880'-7974'                                      |
| 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>Current All Gas Zones:<br>Estimated or Measured                                                                        | (Current)<br>a. 1222 psia @ 5596'<br><br>(Original)<br>b. 1393 psia @ 5596' | a.<br><br>b.                               | a. 1523 psia @ 7927'<br><br>b. 3192 psia @ 7927' |
| 6. Oil Gravity (°API) or Gas BTU Content                                                                                                                                                                 | 988 BTU                                                                     |                                            | 969 BTU                                          |
| 7. Producing or Shut-In?                                                                                                                                                                                 | SHUT-IN                                                                     |                                            | SHUT-IN                                          |
| Production Marginal? (yes or no)                                                                                                                                                                         | YES                                                                         |                                            | YES                                              |
| * If Shut-In and oil/gas/water rates of last production<br><small>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data</small> | Date: 11/97<br>Rates: 124 MCF/D 0 BOD 0 BWD                                 | Date:<br>Rates:                            | Date: 12/96<br>Rates: 89 MCF/D 0 BOD 0 BWD       |
| * If Producing, give data and oil/gas/water of recent test (within 60 days)                                                                                                                              | Date<br>Rates:                                                              | Date:<br>Rates:                            | Date:<br>Rates:                                  |
| 8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)                                                                                                                     | Oil: Gas:<br>Will supply after commingling                                  | Oil: Gas:<br>Will supply after commingling | Oil: Gas:<br>Will supply after commingling       |

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). \_\_\_\_\_
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 Mike Haddenham TITLE Operations Engineer DATE 12-10-99TYPE OR PRINT NAME MIKE HADDENHAM TELEPHONE NO. (505) 326-9577

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION

Form C-102  
Supersedes C-128  
Effective 1-1-55

All distances must be from the outer boundaries of the Section.

|                                                                                                                               |                                                |                        |                             |                                               |                       |
|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------|-----------------------------|-----------------------------------------------|-----------------------|
| Operator<br><b>SOUTHLAND ROYALTY COMPANY</b>                                                                                  |                                                |                        | Lease<br><b>Cat Draw</b>    |                                               | Well No.<br><b>1E</b> |
| Unit Letter<br><b>C</b>                                                                                                       | Section<br><b>4</b>                            | Township<br><b>30N</b> | Range<br><b>5W</b>          | County<br><b>Rio Arriba</b>                   |                       |
| Actual Footage Location of Well:<br><b>860</b> feet from the <b>North</b> line and <b>1770</b> feet from the <b>West</b> line |                                                |                        |                             |                                               |                       |
| Ground Level Elev.<br><b>6453'</b>                                                                                            | Producing Formation<br><b>Dakota/Mesaverde</b> |                        | Pool<br><b>Basin/Blanco</b> | Dedicated Acreage:<br><b>320.319.63</b> Acres |                       |

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SEP 14 1982

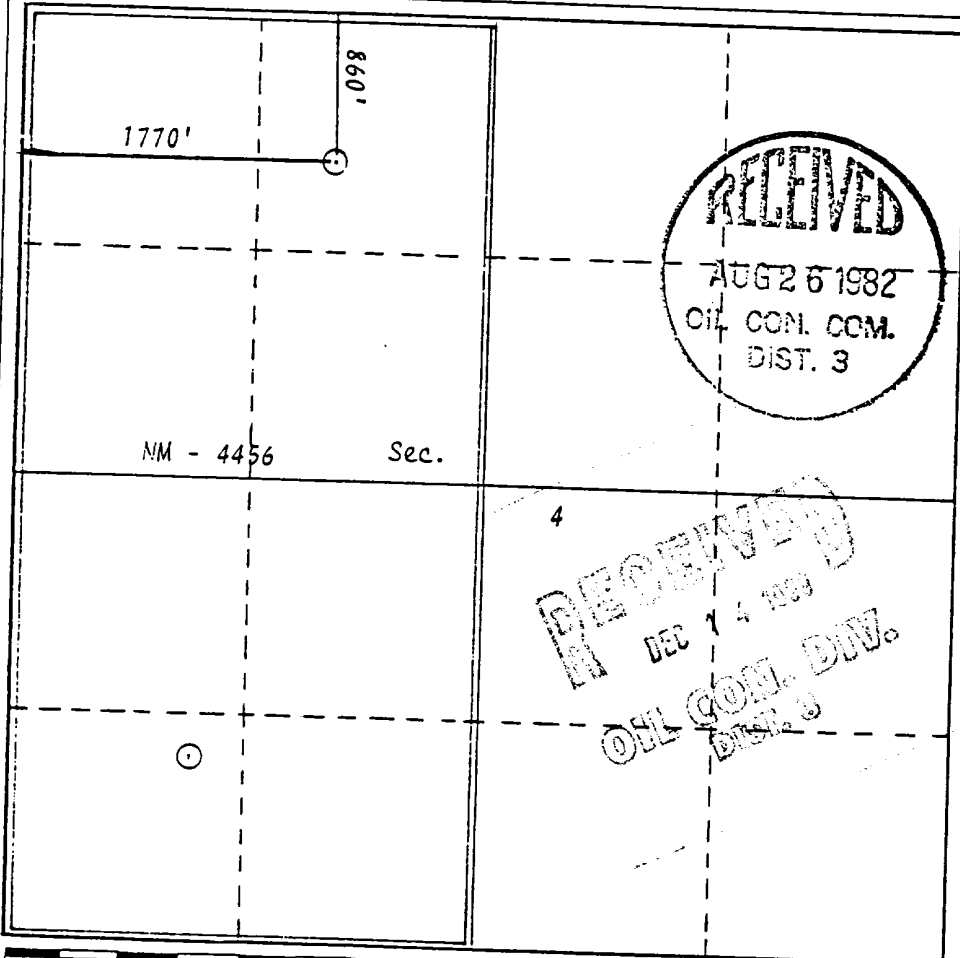
FARMINGTON DISTRICT

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

*R. E. Fielder*

Name  
**R. E. Fielder**  
Position  
**District Engineer**  
Company  
**Southland Royalty Company**  
Date  
**August 3, 1982**

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 knowledge and belief.

Date Surveyed  
\_\_\_\_\_  
Registered Professional Engineer and/or Land Surveyor  
\_\_\_\_\_

Certificate No.  
\_\_\_\_\_

Dec-01-1999

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3 of 3

Northwest New Mexico - April, 1999

Entity Yearly Production Report - Super Base

=====

|            |                                                 |          |             |
|------------|-------------------------------------------------|----------|-------------|
| Entity     | : CAT DRAW (018493)                             | Product: | GAS         |
| Field      | : BLANCO (5900)                                 | Start    | : 198312    |
| Reservoir: | MESAVERDE (625)                                 | Stop     | : 199707    |
| Operator   | : BURLINGTON RESOURCES OIL & GAS COMPA (134050) | Status   | : INACTIVE  |
| Location   | : S4 T30N R5W C RIO ARBA                        | Dist     | : AZTEC     |
| Basin      | : SAN JUAN (580)                                | Well#    | : 1E        |
| Zone       | : MESAVERDE (604MVRD)                           | Lat      | : 36.84647  |
| API        | : 30039230550000                                | Lng      | : 107.36522 |

## Yearly Production

=====

| Year | Year To Date |        |       | Opening Cumulatives |        |       |
|------|--------------|--------|-------|---------------------|--------|-------|
|      | Gas          | Liquid | Water | Gas                 | Liquid | Water |
| 83   | 11709        | 0      | 0     | 0                   | 0      | 0     |
| 84   | 93182        | 0      | 4     | 11709               | 0      | 0     |
| 85   | 26531        | 0      | 25    | 104891              | 0      | 4     |
| 86   | 51936        | 0      | 49    | 131422              | 0      | 29    |
| 87   | 99614        | 0      | 11    | 183358              | 0      | 78    |
| 88   | 61021        | 0      | 7     | 282972              | 0      | 89    |
| 89   | 63703        | 0      | 0     | 343993              | 0      | 96    |
| 90   | 28374        | 0      | 0     | 407696              | 0      | 96    |
| 91   | 23841        | 0      | 0     | 436070              | 0      | 96    |
| 92   | 16596        | 0      | 0     | 459911              | 0      | 96    |
| 93   | 34804        | 0      | 0     | 476507              | 0      | 96    |
| 94   | 31865        | 0      | 0     | 511311              | 0      | 96    |
| 95   | 12970        | 0      | 0     | 543176              | 0      | 96    |
| 96   | 23820        | 0      | 0     | 556146              | 0      | 96    |
| 97   | 6262         | 0      | 0     | 579966              | 0      | 96    |
| 98   | 0            | 0      | 0     | 586228              | 0      | 96    |
| 99   | 0            | 0      | 0     | 586228              | 0      | 96    |

Dec-01-1999

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Northwest New Mexico - April, 1999

## Entity Yearly Production Report - Super Base

=====

Entity : CAT DRAW (018493)

Product: GAS

Field : BASIN (4100)

Start : 198307

Reservoir: DAKOTA (604)

Stop : 199602

Operator : BURLINGTON RESOURCES OIL &amp; GAS COMPA (134050)

Status : INACTIVE

Location : S4 T30N R5W C RIO ARBA

Dist : AZTEC

Basin : SAN JUAN (580)

Well# : 1E

Zone : DAKOTA (602DKOT)

Lat : 36.84647

API : 30039230550000

Lng : 107.36522

## Yearly Production

=====

| Year | Year To Date |        |       | Opening Cumulatives |        |       |
|------|--------------|--------|-------|---------------------|--------|-------|
|      | Gas          | Liquid | Water | Gas                 | Liquid | Water |
| 83   | 21638        | 0      | 9     | 0                   | 0      | 0     |
| 84   | 26874        | 0      | 57    | 21638               | 0      | 9     |
| 85   | 17872        | 0      | 79    | 48512               | 0      | 66    |
| 86   | 11378        | 0      | 141   | 66384               | 0      | 145   |
| 87   | 0            | 0      | 1     | 77762               | 0      | 286   |
| 88   |              |        |       | 77762               |        | 287   |
| 89   | 14369        | 0      | 0     | 77762               | 0      | 287   |
| 90   | 4775         | 0      | 0     | 92131               | 0      | 287   |
| 91   | 0            | 0      | 0     | 96906               | 0      | 287   |
| 92   | 2651         | 0      | 0     | 96906               | 0      | 287   |
| 93   | 0            | 0      | 0     | 99557               | 0      | 287   |
| 94   |              |        |       | 99557               |        | 287   |
| 95   | 3896         | 0      | 0     | 99557               | 0      | 287   |
| 96   | 5543         | 0      | 0     | 103453              | 0      | 287   |
| 97   | 0            | 0      | 0     | 108996              | 0      | 287   |
| 98   | 0            | 0      | 0     | 108996              | 0      | 287   |

# Cumulative Monthly Well Report

December 1997 -- December 1999

Select By : Completions  
Sort By :

Page No : 1  
Report Number : R\_290  
Last Update :  
Print Date : 12/01/1999, 11:07:40

| Completion  | Date       | Cur Oil | Cum Oil | Cur Gas | Cum Gas | Cur Wat | Cum Wat |
|-------------|------------|---------|---------|---------|---------|---------|---------|
| CAT DRAW 1E | 10/31/1998 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 11/30/1998 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 12/31/1998 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 01/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 02/28/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 03/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 04/30/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 05/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 06/30/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 07/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 08/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 09/30/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 10/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 11/30/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 12/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 10/31/1998 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 11/30/1998 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 12/31/1998 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 01/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 02/28/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 03/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 04/30/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 05/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 06/30/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 07/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 08/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 09/30/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 10/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 11/30/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
|             | 12/31/1999 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |

# Cat Draw #1E

## Bottom Hole Pressures

### Flowing and Static BHP

#### Cullender and Smith Method

Version 1.0 3/13/94

| Mesaverde                      |        | Dakota                         |        |
|--------------------------------|--------|--------------------------------|--------|
| <u>MV-Current</u>              |        | <u>DK-Current</u>              |        |
| GAS GRAVITY                    | 0.702  | GAS GRAVITY                    | 0.7355 |
| COND. OR MISC. (C/M)           | M      | COND. OR MISC. (C/M)           | M      |
| %N2                            | 0.13   | %N2                            | 0.40   |
| %CO2                           | 0.98   | %CO2                           | 0.61   |
| %H2S                           | 0      | %H2S                           | 0      |
| DIAMETER (IN)                  | 4.95   | DIAMETER (IN)                  | 4.95   |
| DEPTH (FT)                     | 5596   | DEPTH (FT)                     | 7927   |
| SURFACE TEMPERATURE (DEG F)    | 60     | SURFACE TEMPERATURE (DEG F)    | 60     |
| BOTTOMHOLE TEMPERATURE (DEG F) | 140    | BOTTOMHOLE TEMPERATURE (DEG F) | 184    |
| FLOWRATE (MCFPD)               | 0      | FLOWRATE (MCFPD)               | 0      |
| SURFACE PRESSURE (PSIA)        | 1040   | SURFACE PRESSURE (PSIA)        | 1200   |
| BOTTOMHOLE PRESSURE (PSIA)     | 1222.0 | BOTTOMHOLE PRESSURE (PSIA)     | 1522.9 |
| <u>MV-Original</u>             |        | <u>DK-Original</u>             |        |
| GAS GRAVITY                    | 0.702  | GAS GRAVITY                    | 0.7355 |
| COND. OR MISC. (C/M)           | M      | COND. OR MISC. (C/M)           | M      |
| %N2                            | 0.13   | %N2                            | 0.40   |
| %CO2                           | 0.98   | %CO2                           | 0.61   |
| %H2S                           | 0      | %H2S                           | 0      |
| DIAMETER (IN)                  | 4.95   | DIAMETER (IN)                  | 4.95   |
| DEPTH (FT)                     | 5596   | DEPTH (FT)                     | 7927   |
| SURFACE TEMPERATURE (DEG F)    | 60     | SURFACE TEMPERATURE (DEG F)    | 60     |
| BOTTOMHOLE TEMPERATURE (DEG F) | 140    | BOTTOMHOLE TEMPERATURE (DEG F) | 184    |
| FLOWRATE (MCFPD)               | 0      | FLOWRATE (MCFPD)               | 0      |
| SURFACE PRESSURE (PSIA)        | 1181   | SURFACE PRESSURE (PSIA)        | 2489   |
| BOTTOMHOLE PRESSURE (PSIA)     | 1392.5 | BOTTOMHOLE PRESSURE (PSIA)     | 3191.6 |

**CAT DRAW #1E**  
**Sec. 04, T30N R05W**  
**Rio Arriba County, New Mexico**

**Production Allocation Based On Cumulative Production Through 1997**

|           | Cumulative Production |         | % Allocation |       |
|-----------|-----------------------|---------|--------------|-------|
|           | MCF                   | Bbl Oil | % Gas        | % Oil |
| Dakota    | 108,996               | 0       | 15.8%        | 0.0%  |
| Mesaverde | 579,966               | 0       | 84.2%        | 0.0%  |
| Total     | 688,962               | 0       | 100.0%       | 0.0%  |

**Gas Allocation:**

**Dakota**      (Total Dakota Production)      108,996 MCF  
-----  
(Total Combined Production)      688,962 MCF      =   **15.82%**

**Mesaverde**      (Total Mesaverde Production)      579,966 MCF  
-----  
(Total Combined Production)      688,962 MCF      =   **84.18%**

**Oil Allocation:**

**Dakota**      (Total Dakota Production)      0 Bbl Oil  
-----  
(Total Combined Production)      0 Bbl Oil      =   **0.00%**

**Mesaverde**      (Total Mesaverde Production)      0 Bbl Oil  
-----  
(Total Combined Production)      0 Bbl Oil      =   **0.00%**

# OIL CONSERVATION DIVISION

API # 30-039-23055

Page 1  
Revised 10/01/78

## NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator BURLINGTON RESOURCES OIL & GAS CO. Lease CAT DRAW Well No. 1E

Location

of Well: Unit C Sect 04 Twp. 030N Rge. 005W County RIO ARRIBA

|                  | NAME OF RESERVOIR OR POOL | TYPE OF PROD.<br>(Oil or Gas) | METHOD OF PROD.<br>(Flow or Art. Lift) | PROD. MEDIUM<br>(Tbg. or Csg.) |
|------------------|---------------------------|-------------------------------|----------------------------------------|--------------------------------|
| Upper Completion | MESAVERDE                 | Gas                           | Flow                                   | Tubing                         |
| Lower Completion | DAKOTA                    | Gas                           | Flow                                   | Tubing                         |

### PRE-FLOW SHUT-IN PRESSURE DATA

| Upper Completion | Hour, date shut-in<br>05/03/1999 | Length of time shut-in<br>120 Hours | SI press. psig<br>1040 | Stabilized? (Yes or No) |
|------------------|----------------------------------|-------------------------------------|------------------------|-------------------------|
| Lower Completion | 05/03/1999                       | 72 Hours                            | 1200                   |                         |

### FLOW TEST NO. 1

| Commenced at (hour,date)*<br>05/06/1999 |                       | Zone producing (Upper or Lower)<br>LOWER |         |
|-----------------------------------------|-----------------------|------------------------------------------|---------|
| TIME<br>(hour,date)                     | LAPSED TIME<br>SINCE* | PROD. ZONE<br>TEMP                       | REMARKS |
|                                         |                       |                                          |         |
| 5/07/199                                | 96 Hours              | 1040                                     | 0       |
| 5/08/199                                | 120 Hours             | 1040                                     | 0       |
|                                         |                       |                                          |         |
|                                         |                       |                                          |         |
|                                         |                       |                                          |         |
|                                         |                       |                                          |         |

Production rate during test

Oil: \_\_\_\_\_ BOPD based on \_\_\_\_\_ Bbls. in \_\_\_\_\_ Hours. \_\_\_\_\_ Grav. \_\_\_\_\_ GOR \_\_\_\_\_

Gas: \_\_\_\_\_ MCFPD; Tested thru (Orifice or Meter): \_\_\_\_\_

### MID-TEST SHUT-IN PRESSURE DATA

| Upper Completion | Hour, date shut-in | Length of time shut-in | SI press. psig | Stabilized? (Yes or No) |
|------------------|--------------------|------------------------|----------------|-------------------------|
| Lower Completion | Hour, date shut-in | Length of time shut-in | SI press. psig | Stabilized? (Yes or No) |

(Continue on reverse side)