

TOM L. INGRAM  
WHITE RANCH NO. 4  
MILOCAT  
LEA COUNTY, NEW MEXICO

DATE: 4-25-77  
FORMATION: MISSISSIPPIAN  
DRUG. FLUID: WATER BASE MUD  
LOCATION: 600 FNAEL SEC 25 T11S R29E  
33

FILE NO: 5102-10274  
ENGINEER: NEFF  
ELEVATION: 5790 GL

\* INDICATES PLUG PERM

S INDICATES PRESERVED SAMPLE

SMP.  
NO.

DEPTH

PERM. TO AIR MD.  
MAXIMUM 90 DEG VERT.POROSITY  
GEX. FLD. OIL WTR.GR.  
DEN.

DESCRIPTION

## WHOLE CORE ANALYSIS

|    |             |      |      |      |      |      |                  |
|----|-------------|------|------|------|------|------|------------------|
| 1  | 8494.0-98.4 | <0.1 | <0.1 | 5.2  | 0.0  | 34.3 | LM,STY           |
| 2  | 8495.4-96.9 | <0.1 | <0.1 | 3.1  | 0.0  | 15.0 | LM,STY           |
| 3  | 8496.9-98.2 | <0.1 | <0.1 | 5.0  | 0.0  | 35.3 | LM               |
| 4  | 8498.2-99.5 | <0.1 | <0.1 | 5.1  | 0.0  | 38.2 | LM,STY           |
| 5  | 8499.5-01.3 | 0.3  | <0.1 | 6.6  | 3.2  | 44.8 | LM,FRAC          |
| 6  | 8501.3-03.0 | <0.1 | <0.1 | 6.1  | 2.8  | 40.2 | LM               |
| 7  | 8503.0-04.4 | <0.1 | <0.1 | 4.5  | 3.1  | 32.3 | LM               |
| 8  | 8504.4-05.4 | <0.1 | <0.1 | 3.0  | 0.0  | 59.3 | LM,STY           |
| 9  | 8505.4-06.7 | <0.1 | <0.1 | 3.5  | 4.2  | 48.3 | LM,STY           |
| 10 | 8506.7-08.0 | 0.1  | <0.1 | 6.2  | 0.0  | 40.6 | LM,STY           |
| 11 | 8508.0-09.0 | <0.1 | <0.1 | 6.9  | 2.3  | 39.4 | LM,STY           |
| 12 | 8509.0-10.8 | 0.3  | 0.2  | 8.8  | 5.5  | 34.5 | LM               |
| 13 | 8510.8-12.0 | 0.4  | 0.3  | 12.7 | 7.6  | 51.2 | LM               |
| 14 | 8512.0-13.2 | 0.1  | 0.1  | 10.1 | 5.0  | 39.5 | LM               |
| 15 | 8513.2-14.6 | 0.4  | 0.3  | 9.6  | 4.6  | 44.2 | LM,SL/FRAC       |
| 16 | 8514.6-16.1 | 0.1  | 0.1  | 8.6  | 11.4 | 34.8 | LM               |
| 17 | 8516.1-17.6 | 0.2  | 0.1  | 9.3  | 10.1 | 34.5 | LM               |
| 18 | 8517.6-19.0 | 0.3  | 0.2  | 10.4 | 12.3 | 34.9 | LM,SL/FRAC       |
| 19 | 8519.0-20.1 | 0.2  | 0.1  | 9.7  | 9.3  | 34.9 | LM               |
| 20 | 8520.1-21.6 | 0.2  | 0.1  | 9.7  | 10.6 | 35.6 | LM               |
| 21 | 8521.6-23.0 | 0.1  | 0.1  | 9.4  | 7.8  | 38.8 | LM               |
| 22 | 8523.0-24.1 | 0.3  | 0.3  | 9.1  | 0.0  | 47.9 | LM               |
| 23 | 8524.1-25.6 | 0.1  | <0.1 | 8.0  | 4.4  | 41.3 | LM,SL/FRAC       |
| 24 | 8525.6-26.6 | <0.1 | <0.1 | 5.1  | 0.0  | 23.7 | LM               |
| 25 | 8526.6-28.1 | <0.1 | <0.1 | 4.7  | 0.0  | 27.4 | LM               |
| 26 | 8528.1-29.4 | <0.1 | <0.1 | 6.2  | 2.3  | 53.6 | LM,VERTFRAC      |
| 27 | 8529.4-30.4 | 0.2  | 0.1  | 7.7  | 2.7  | 46.2 | LM,VERTFRAC,STY  |
| 28 | 8530.4-31.5 | 0.4  | 0.3  | 9.4  | 6.5  | 42.5 | LM,CHTY,VERTFRAC |
| 29 | 8531.5-32.8 | <0.1 | <0.1 | 4.7  | 6.7  | 51.3 | LM,CHTY          |
| 30 | 8532.8-34.0 | <0.1 | <0.1 | 5.0  | 3.6  | 53.6 | LM,CHTY          |
| 31 | 8534.0-35.2 | <0.1 | <0.1 | 1.0  | 0.0  | 73.9 | LM,SHY,STY       |
| 32 | 8535.2-36.5 | <0.1 | <0.1 | 0.8  | 0.0  | 70.0 | LM,SHY,STY       |
| 33 | 8536.5-37.5 | <0.1 | <0.1 | 0.3  | 0.0  | 87.5 | LM,SHY,CHTY,STY  |
| 34 | 8537.5-39.0 | <0.1 | <0.1 | 0.4  | 0.0  | 81.8 | LM,SHY,STY       |

8539.0-73.0

LM,SHY

Dec 17 1972

Exhibit

Case No

10617

# Schlumberger

Tom L. Taggart

JACK AHLEN  
Wife: Betty Kay

533 W. ACHEN  
ROSWELL, NEW MEXICO 88

COUNTY Chaves STATE N.M.

### Other Services:

|          |               |     |     |       |
|----------|---------------|-----|-----|-------|
| LOCATION | AFT SERIAL NO | SEC | TWP | RANGE |
|          |               |     |     |       |

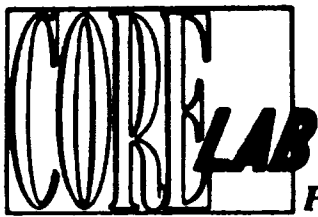
Elev.: K.B. 3771  
D.F.           
G.I. 3768

Permanent Datum: 6.6'; Elev.: \_\_\_\_\_  
 Measured From X B 11 Ft. Above Perm. Datum

[illegible]

**0508**

Dec 17 1992  
Exhibit



CORE LABORATORIES, INC.

Petroleum Reservoir Engineering

Case No  
10617

COMPANY TOM L. INGRAM FIELD WILDCAT FILE 3102-10279  
WELL WHITE RANCH NO. 4 COUNTY LEA COUNTY DATE 6-25-77  
LOCATION 660 FM 23 SEC 23 T11S R29E STATE NEW MEXICO ELEV. 3790 GL

## CORE-GAMMA CORRELATION

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or land in connection with which such report is used or relied upon.

VERTICAL SCALE: 5" = 100'

WELL CORE ANALYSIS

TOTAL WATER 0000

PERCENT PORE SPACE

80 60 40 20 0

GAMMA RAY  
RADIATION INCREASE  
→

PERMEABILITY  
MILLIDARCY

POROSITY  
PERCENT

OIL SATURATION XXXX  
PERCENT PORE SPACE

100.0 10.0 1.0 0.1

30

20

10

0

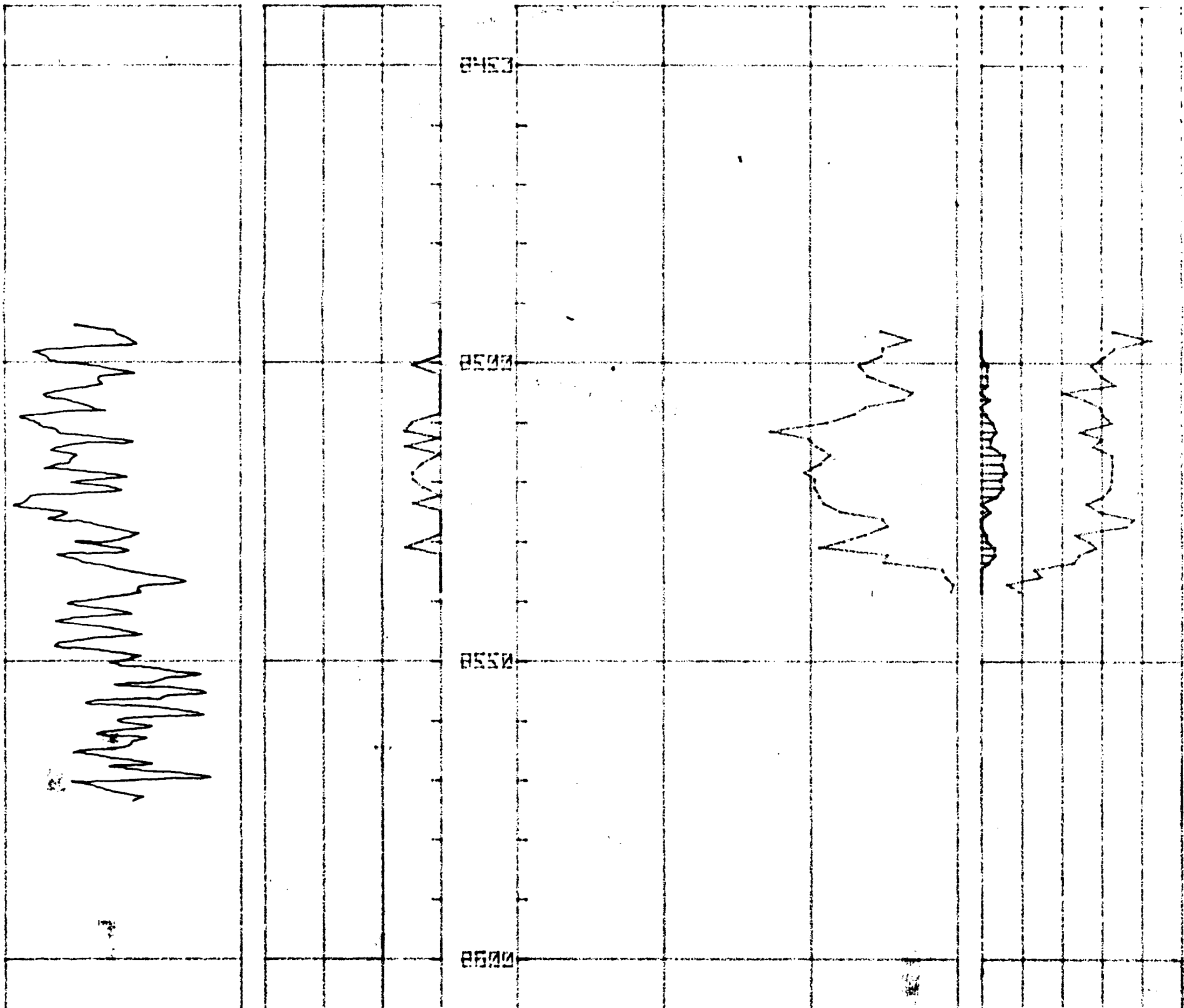
0

20

40

60

80



Exhibit

FIELD REPORT NO.: 05726 D

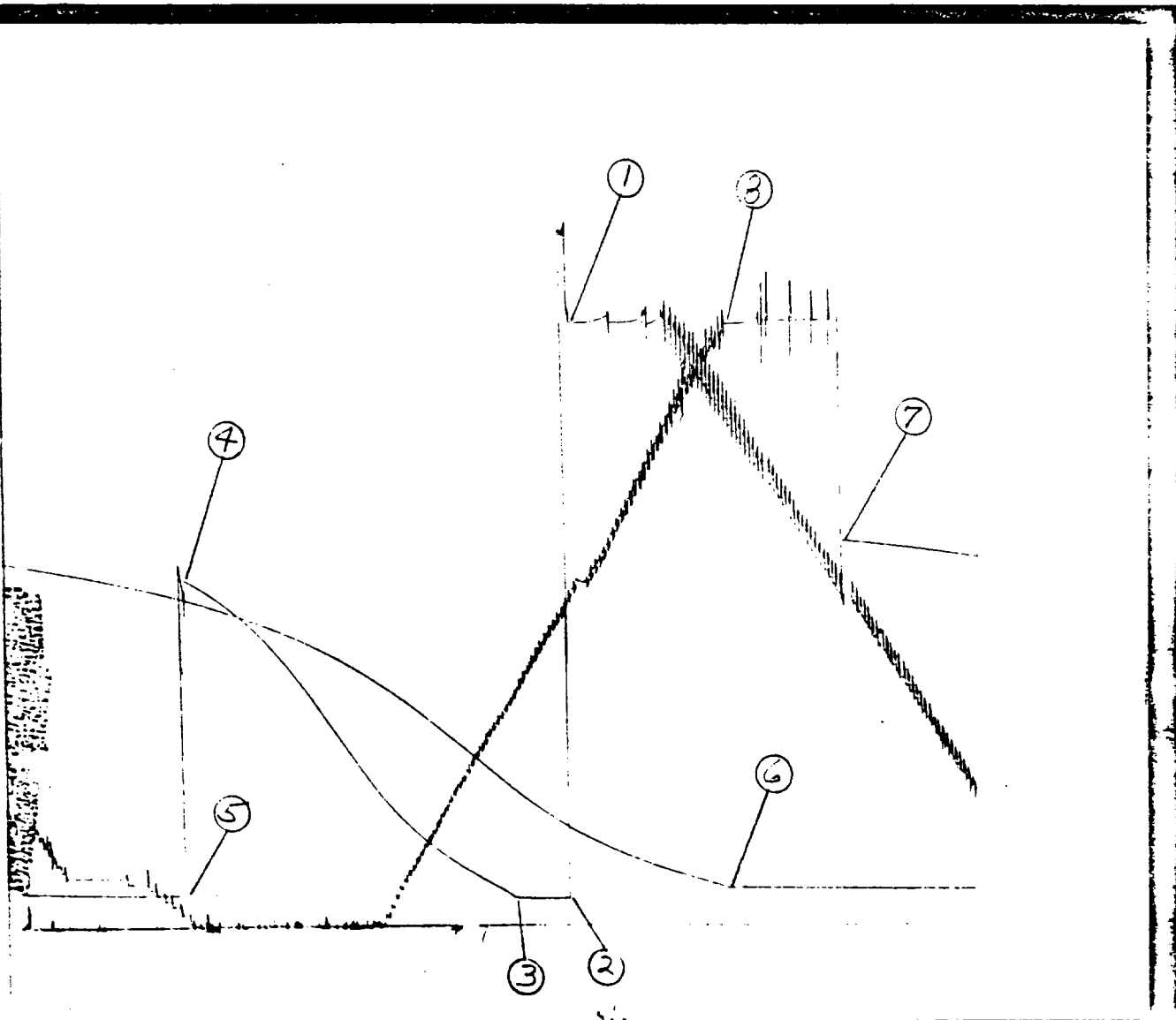
INSTRUMENT NO.: J-376

CAPACITY: 6400#

NO. OF REPORTS: 5-

10  
Case 10617  
Dec 17, 1942

PRESSURE DATA FROM THIS CHART IS PRESENTED ON NEXT PAGE



# BOTTOM HOLE PRESSURE AND TIME DATA



INSTRUMENT NO.: J-376

CAPACITY(P.S.I.): 6400

DEPTH: 8567 FT.

PORT OPENING: OUTSIDE

BOTTOM HOLE TEMP.: 150

PAGE 1 OF 4

| DESCRIPTION             | LABELED<br>POINTS | PRESSURE<br>(P.S.I.) | GIVEN<br>TIME | COMPUTED<br>TIME |
|-------------------------|-------------------|----------------------|---------------|------------------|
| INITIAL HYDROSTATIC MUD | 1                 | 4407.6               |               |                  |
| INITIAL FLOW(1)         | 2                 | 215.9                |               |                  |
| INITIAL FLOW(2)         | 3                 | 219.7                | 15            | 15               |
| INITIAL SHUT-IN         | 4                 | 2544.9               | 90            | 91               |
| FINAL FLOW(1)           | 5                 | 248.9                |               |                  |
| FINAL FLOW(2)           | 6                 | 280.7                | 120           | 121              |
| FINAL SHUT-IN           | 7                 | 2804.1               | 241           | 240              |
| FINAL HYDROSTATIC MUD   | 8                 | 4394.9               |               |                  |

## INCREMENTAL READINGS

| LABEL<br>POINT | DELTA<br>TIME | PRESSURE<br>(P.S.I.) | T + DT/DT | LOG   | PW - PF<br>(P.S.I.) | COMMENTS                           |
|----------------|---------------|----------------------|-----------|-------|---------------------|------------------------------------|
| 1              |               | 4407.6               |           |       |                     | HYDROSTATIC MUD<br>INITIAL FLOW(1) |
| 2              | 0             | 215.9                |           |       |                     |                                    |
|                | 1             | 215.9                |           |       |                     |                                    |
|                | 2             | 215.9                |           |       |                     |                                    |
|                | 3             | 215.9                |           |       |                     |                                    |
|                | 4             | 213.3                |           |       |                     |                                    |
|                | 5             | 213.3                |           |       |                     |                                    |
|                | 6             | 213.3                |           |       |                     |                                    |
|                | 7             | 214.6                |           |       |                     |                                    |
|                | 8             | 214.6                |           |       |                     |                                    |
|                | 9             | 214.6                |           |       |                     |                                    |
|                | 10            | 215.9                |           |       |                     | INITIAL FLOW(2)<br>STARTED SHUT-IN |
|                | 12            | 217.1                |           |       |                     |                                    |
|                | 14            | 219.7                |           |       |                     |                                    |
| 3              | 15            | 219.7                |           |       |                     |                                    |
| 3              | 0             | 219.7                |           |       |                     |                                    |
|                | 5             | 298.4                | 4.000     | 0.602 | 78.8                |                                    |
|                | 10            | 370.9                | 2.500     | 0.398 | 151.2               |                                    |
|                | 15            | 452.2                | 2.000     | 0.301 | 232.5               |                                    |
|                | 20            | 541.1                | 1.750     | 0.243 | 321.5               |                                    |
|                | 25            | 641.5                | 1.600     | 0.204 | 421.8               |                                    |
|                | 30            | 759.7                | 1.500     | 0.176 | 540.0               | INITIAL SHUT-IN                    |
|                | 35            | 899.4                | 1.429     | 0.155 | 679.8               |                                    |
|                | 40            | 1060.8               | 1.375     | 0.138 | 841.1               |                                    |
|                | 45            | 1241.2               | 1.333     | 0.125 | 1021.6              |                                    |
|                | 50            | 1433.1               | 1.300     | 0.114 | 1213.4              |                                    |
|                | 55            | 1622.4               | 1.273     | 0.105 | 1402.7              |                                    |
|                | 60            | 1801.6               | 1.250     | 0.097 | 1581.9              |                                    |
|                | 65            | 1965.5               | 1.231     | 0.090 | 1745.8              |                                    |
|                | 70            | 2110.3               | 1.214     | 0.084 | 1890.7              |                                    |
|                | 75            | 2234.8               | 1.200     | 0.079 | 2015.2              |                                    |
|                | 80            | 2344.1               | 1.188     | 0.075 | 2124.4              |                                    |
|                | 85            | 2438.1               | 1.176     | 0.071 | 2218.5              |                                    |
|                | 90            | 2520.7               | 1.167     | 0.067 | 2301.1              |                                    |
| 4              | 91            | 2544.9               | 1.165     | 0.066 | 2325.2              | INITIAL SHUT-IN                    |

| LABEL<br>POINT | DELTA<br>TIME | PRESSURE<br>(P.S.I.) | T + DT/DT | LOG | PW - PF<br>(P.S.I.) | COMMENTS      |
|----------------|---------------|----------------------|-----------|-----|---------------------|---------------|
| 5              | 0             | 248.9                |           |     |                     | FINAL FLOW(1) |
|                | 1             | 246.3                |           |     |                     |               |
|                | 2             | 246.3                |           |     |                     |               |
|                | 3             | 246.3                |           |     |                     |               |
|                | 4             | 245.1                |           |     |                     |               |
|                | 5             | 245.1                |           |     |                     |               |
|                | 6             | 245.1                |           |     |                     |               |
|                | 7             | 245.1                |           |     |                     |               |
|                | 8             | 245.1                |           |     |                     |               |
|                | 9             | 245.1                |           |     |                     |               |
|                | 10            | 245.1                |           |     |                     |               |
|                | 12            | 245.1                |           |     |                     |               |
|                | 14            | 243.8                |           |     |                     |               |
|                | 16            | 243.8                |           |     |                     |               |
|                | 18            | 243.8                |           |     |                     |               |
|                | 20            | 243.8                |           |     |                     |               |
|                | 22            | 245.1                |           |     |                     |               |
|                | 24            | 246.3                |           |     |                     |               |
|                | 26            | 246.3                |           |     |                     |               |
|                | 28            | 246.3                |           |     |                     |               |
|                | 30            | 247.6                |           |     |                     |               |
|                | 32            | 247.6                |           |     |                     |               |
|                | 34            | 247.6                |           |     |                     |               |
|                | 36            | 248.9                |           |     |                     |               |
|                | 38            | 248.9                |           |     |                     |               |
|                | 40            | 250.2                |           |     |                     |               |
|                | 42            | 250.2                |           |     |                     |               |
|                | 44            | 250.2                |           |     |                     |               |
|                | 46            | 251.4                |           |     |                     |               |
|                | 48            | 252.7                |           |     |                     |               |
|                | 50            | 252.7                |           |     |                     |               |
|                | 52            | 252.7                |           |     |                     |               |
|                | 54            | 254.0                |           |     |                     |               |
|                | 56            | 255.2                |           |     |                     |               |
|                | 58            | 256.5                |           |     |                     |               |
|                | 60            | 257.8                |           |     |                     |               |
|                | 62            | 257.8                |           |     |                     |               |
|                | 64            | 259.1                |           |     |                     |               |
|                | 66            | 259.1                |           |     |                     |               |
|                | 68            | 260.3                |           |     |                     |               |
|                | 70            | 261.6                |           |     |                     |               |
|                | 72            | 262.9                |           |     |                     |               |
|                | 74            | 262.9                |           |     |                     |               |
|                | 76            | 264.1                |           |     |                     |               |
|                | 78            | 264.1                |           |     |                     |               |
|                | 80            | 265.4                |           |     |                     |               |
|                | 82            | 266.7                |           |     |                     |               |
|                | 84            | 266.7                |           |     |                     |               |
|                | 86            | 267.9                |           |     |                     |               |
|                | 88            | 267.9                |           |     |                     |               |
|                | 90            | 269.2                |           |     |                     |               |
|                | 92            | 269.2                |           |     |                     |               |
|                | 94            | 270.5                |           |     |                     |               |

| LABEL<br>POINT | DELTA<br>TIME | PRESSURE<br>(P.S.I.) | T + DT/DT | LOG   | PW - PF<br>(P.S.I.) | COMMENTS        |
|----------------|---------------|----------------------|-----------|-------|---------------------|-----------------|
|                | 96            | 271.8                |           |       |                     |                 |
|                | 98            | 271.8                |           |       |                     |                 |
|                | 100           | 273.0                |           |       |                     |                 |
|                | 102           | 273.0                |           |       |                     |                 |
|                | 104           | 274.3                |           |       |                     |                 |
|                | 106           | 274.3                |           |       |                     |                 |
|                | 108           | 275.6                |           |       |                     |                 |
|                | 110           | 276.8                |           |       |                     |                 |
|                | 112           | 276.8                |           |       |                     |                 |
|                | 114           | 278.1                |           |       |                     |                 |
|                | 116           | 279.4                |           |       |                     |                 |
|                | 118           | 279.4                |           |       |                     |                 |
|                | 120           | 280.7                |           |       |                     |                 |
| 6              | 121           | 280.7                |           |       |                     | FINAL FLOW(2)   |
| 6              | 0             | 280.7                |           |       |                     | STARTED SHUT-IN |
|                | 1             | 290.8                | 137.000   | 2.137 | 10.2                |                 |
|                | 2             | 299.7                | 69.000    | 1.839 | 19.1                |                 |
|                | 3             | 307.3                | 46.333    | 1.666 | 26.7                |                 |
|                | 4             | 315.0                | 35.000    | 1.544 | 34.3                |                 |
|                | 5             | 323.9                | 28.200    | 1.450 | 43.2                |                 |
|                | 6             | 331.5                | 23.667    | 1.374 | 50.8                |                 |
|                | 7             | 339.1                | 20.429    | 1.310 | 58.4                |                 |
|                | 8             | 346.7                | 18.000    | 1.255 | 66.1                |                 |
|                | 9             | 355.6                | 16.111    | 1.207 | 75.0                |                 |
|                | 10            | 363.2                | 14.600    | 1.164 | 82.6                |                 |
|                | 12            | 379.8                | 12.333    | 1.091 | 99.1                |                 |
|                | 14            | 396.3                | 10.714    | 1.030 | 115.6               |                 |
|                | 16            | 414.1                | 9.500     | 0.978 | 133.4               |                 |
|                | 18            | 431.9                | 8.556     | 0.932 | 151.2               |                 |
|                | 20            | 450.9                | 7.800     | 0.892 | 170.3               |                 |
|                | 22            | 470.0                | 7.182     | 0.856 | 189.3               |                 |
|                | 24            | 489.0                | 6.667     | 0.824 | 208.4               |                 |
|                | 26            | 510.6                | 6.231     | 0.795 | 230.0               |                 |
|                | 28            | 531.0                | 5.857     | 0.768 | 250.3               |                 |
|                | 30            | 553.8                | 5.533     | 0.743 | 273.2               |                 |
|                | 40            | 678.4                | 4.400     | 0.643 | 397.7               |                 |
|                | 50            | 838.4                | 3.720     | 0.571 | 557.8               |                 |
|                | 60            | 1032.9               | 3.267     | 0.514 | 752.2               |                 |
|                | 70            | 1247.6               | 2.943     | 0.469 | 966.9               |                 |
|                | 80            | 1463.6               | 2.700     | 0.431 | 1182.9              |                 |
|                | 90            | 1663.1               | 2.511     | 0.400 | 1382.4              |                 |
|                | 100           | 1838.4               | 2.360     | 0.373 | 1557.8              |                 |
|                | 110           | 1989.6               | 2.236     | 0.350 | 1709.0              |                 |
|                | 120           | 2116.7               | 2.133     | 0.329 | 1836.0              |                 |
|                | 130           | 2224.7               | 2.046     | 0.311 | 1944.0              |                 |
|                | 140           | 2314.9               | 1.971     | 0.295 | 2034.2              |                 |
|                | 150           | 2394.9               | 1.907     | 0.280 | 2114.3              |                 |
|                | 160           | 2463.5               | 1.850     | 0.267 | 2182.9              |                 |
|                | 170           | 2523.3               | 1.800     | 0.255 | 2242.6              |                 |
|                | 180           | 2576.6               | 1.756     | 0.244 | 2296.0              |                 |
|                | 190           | 2623.6               | 1.716     | 0.234 | 2343.0              |                 |
|                | 200           | 2665.6               | 1.680     | 0.225 | 2384.9              |                 |
|                | 210           | 2703.7               | 1.648     | 0.217 | 2423.0              |                 |

| LABEL<br>POINT | DELTA<br>TIME | PRESSURE<br>(P.S.I.) | T + DT/DT | LOG   | PW - PF<br>(P.S.I.) | COMMENTS        |
|----------------|---------------|----------------------|-----------|-------|---------------------|-----------------|
|                | 220           | 2740.5               | 1.618     | 0.209 | 2459.9              |                 |
|                | 230           | 2773.6               | 1.591     | 0.202 | 2492.9              |                 |
| 7              | 240           | 2804.1               | 1.567     | 0.195 | 2523.4              | FINAL SHUT-IN   |
| 8              |               | 4394.9               |           |       |                     | HYDROSTATIC MUD |

# MAGNOLIA PETROLEUM COMPANY

32A

C S E S E

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

State New Mexico County Chaves  
 Company Ohio Oil Co.  
 Farm Name State "WR" Well Number 1  
 Scout Jim Rogers Contractor  
 Pool Undesignated Elevation 3705 df  
 Section 36 Township 11S Range 28E  
 Feet from North 660' Feet from East  
 Feet from South 660'

## Casing Record

| Size   | Set  | Cement |
|--------|------|--------|
| 13 3/8 | 364  | 300    |
| 7 7/8  | 1722 | 678    |
|        |      |        |
|        |      |        |
|        |      |        |
|        |      |        |
|        |      |        |

## Shows

| Water | Gas | Oil | Oil & Gas |
|-------|-----|-----|-----------|
|       |     |     |           |
|       |     |     |           |
|       |     |     |           |
|       |     |     |           |
|       |     |     |           |
|       |     |     |           |
|       |     |     |           |

## Formation Tops

Spe SA 1820  
 Quesh 5376  
 W.C. 6340  
 Tress 7769  
 Dun 8324  
 S. J. 597  
 Tress 1266  
 SA 1830  
 S. J. 3174  
 Tress 4590  
 Quesh 5397  
 W.C. 6277  
 Penn. 6988  
 Tress 7776

Spudded 9-1/-59 Exhibit  
 T.D. 8465 dls T.P.  
 I.P. PEA  
 G.O.R. Gr.  
 C.P. T.P.  
 Completed 11-25-59  
 Dun 8326

| Date        | #200' Dev.                | Date        |                                |
|-------------|---------------------------|-------------|--------------------------------|
| 9-16        | TD 370' A, WOC            |             | 630 XW                         |
| SEP 23 1959 | TD 2451 L WCC             |             | Pp 820-1040 30/3240            |
| SEP 30 1959 | TD 3326 L                 | NOV 20 1959 | ID 8465 dls PB 1868 Tg         |
| OCT 7 1959  | TD 5781 Sh Rich           |             | Pp 208/1593-1650               |
| OCT 14 1959 | TD 6590 L                 |             | A 500                          |
| OCT 21 1959 | TD 7715 L & Sh            |             | SOF 10000                      |
| OCT 28 1959 | TD 8123 L                 | NOV 18 1959 | TD 8465 dls PB 1868 p to Suler |
|             | DST 7900-47 1000wb of 2'  |             | Ble 1556                       |
|             | Pp WB + 120 SGCM          |             | Pp 96/1456-80                  |
|             | Pp 460-460 30/AWC         |             | 32/1490-98                     |
| NOV 4 1959  | ID 8465 dls p to PB       |             | 84/1513-34                     |
|             | DST 8326-55 1000wb of 1'  |             | MA 500                         |
|             | Pp WB                     |             | SOF 10000                      |
|             | 10 Mud NS                 |             | Pp 224 BLO 13' 1/4" dls        |
|             | Pp 500-500 30/3365        |             | S dls                          |
|             | DST 8355-465 1000wb of 2' | NOV 2 1959  | ID 8465 dls PB 1868 p to PEA   |
|             | Pp WB                     |             | Suler & BNO 10' (1456-1534)    |
|             | 270 Mud                   |             | didn't see down (1593-1650)    |

(7) Petroleum Information.

NAME CHAVES FIELD White Ranch STATE NM  
 OPERATOR INGRAM, TOM L. API 30-005-60405  
 4 LEASE White Ranch MAP  
 Sec 33, T11S, R29E COORD  
 660' FNL, 660' FEL of Sec 9-3-2 NM  
 21 1/2 mi NE/Dexter SPD 3-22-77 CMP 8-19-77

1 5/8" at 355' w/350 sx  
 2 5/8" at 2157' w/1000 sx  
 1 1/2" at 8810' w/200 sx

| WELL CLASS: INIT D FINDG ELEV L & S |       |           |       |
|-------------------------------------|-------|-----------|-------|
| FORMATION                           | DATUM | FORMATION | DATUM |
|                                     |       |           |       |
|                                     |       |           |       |
|                                     |       |           |       |
|                                     |       |           |       |
| TD 8810' (DVNN)                     |       | PBD 8682' |       |

11 (Mississippian) Perfs 8502-35' CAOF 2073 MCFGPD. GOR dry;  
 dry (gas) .6802; SIBHP 2328#

11 Moranco SPRSELEV 3768' GL, 3779' KBPD 8800' RT

F.R. 1-17-77  
 (Siluro-Devonian)  
 1-29-77 Drlg 3470' 1m  
 2-5-77 Drlg 6435'  
 4-12-77 Drlg 6975' 1m & sh  
 DST (SADR ) 2730-2815', open 1 hr, rec 775'  
 DF (Sampler rec 2350 cc's SW), 1 hr ISIP 1075#,  
 FP 355-388#, 1 hr 30 min FSIP 1069#, HP 1207-1207#,  
 BHT 89 deg  
 DST (WFMP ) 6898-6942', open 1 hr 30 mins,  
 rec 60' DM (Sampler rec 1900 cc's DM), 1 hr ISIP  
 1361#, FP 66-66#, No FSIP, HP 3430-3417#, BHT  
 122 deg  
 1-19-77 Drlg 7980' 1m & sh  
 4-26-77 Coring @ 8534'

9-3-2 NM

CHAVES  
INGRAM, TOM L.

White Ranch  
4 White Ranch  
Sec 33, T11S, R29E

NM  
Page #2

4-26-77 Continued  
DST (WFMP) 7980-80', open 2 hrs, rec 45'  
sli GCM, 1 hr ISIP 263#, FP 84-84#, FSIP  
failed, HP 4105-4135#, BHT 139 deg  
5-3-77 Drlg 8797"  
Cored (MSSP) 8534-73', rec 39' im  
DST (MSSP) 8480-8573', open 2 hrs, rec 500'  
G&DCM (Sampler rec .5 CFG + 2240 cc's G&DCM  
@ 240#), 1 hr 30 min ISIP 2556#, FP 256-281#,  
4 hr FSIP 2811#, HP 4411-4411#, BHT 150 deg  
5-10-77 TD 8810'; MORT  
5-17-77 TD 8810'; PBD 8682'; Prep Perf

9-3-2 NM

5-23-77 TD 8810'; PBD 8682'; SI  
Perf (MSSP) 8502-06', 8510-13', 8518-24',  
8528-35'  
Frac (8502-35') 25,000 gals + 7600# sd  
5-31-77 TD 8810'; PBD 8682'; Swbg  
6-7-77 TD 8810'; PBD 8682'; Flwg  
8-9-77 TD 8810'; PBD 8682'; WOSP  
8-12-77 TD 8810'; PBD 8682'; Complete  
(Mississippian) FOUR POINT GAUGES:  
Flwd 344 MCFGPD, 5/64" chk, 60 mins, TP 2290#  
Flwd 512 MCFGPD, 6/64" chk, 60 mins, TP 2102#  
Flwd 616 MCFGPD, 7/64" chk, 60 mins, TP 1975#  
Flwd 718 MCFGPD, 9/64" chk, 60 mins, TP 1817#  
LOG TOPS: Rustler Anhydrite 310', Yates 851',  
Queen 1550', San Andres 2110', Glorieta 3460',  
Tubb 4481', Abo 5712', Wolfcamp 6700',  
Mississippian 8312'

9-3-2 NM

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CHAVES  
INGRAM, TOM L.

White Ranch  
4 White Ranch  
Sec 33, T11S, R29E

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NM  
Page #3

8-12-77      Continued  
LOGS RUN: CNL, FDC, DILL  
BHT 144 deg  
9-17-77      COMPLETION ISSUED

9-3-2 NM  
IC 30-005-70001-77

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**Petroleum Information**

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COUNTY CHAVES FIELD White Ranch STATE NM  
 OPR INGRAM, TOM L. API MC 00424  
 1 LEASE White Ranch SERIAL 5-3-1 NM  
 Sec 34, T11S, R29E MAP  
 1980' FNL, 660' FWL of Sec CO-ORD  
 21 1/2 mi NE/Dexter ELEV LBS

| Re- 3-16-77 | Re- 3-19-77 | WELL CLASS: | INT    | DX        | FIR   | DG |
|-------------|-------------|-------------|--------|-----------|-------|----|
| SPD         | CMP         | FORMATION   | DATUM  | FORMATION | DATUM |    |
| CSC         |             |             |        |           |       |    |
|             |             |             |        |           |       |    |
|             |             |             |        |           |       |    |
|             |             |             |        |           |       |    |
|             |             |             |        |           |       |    |
|             |             |             |        |           |       |    |
|             |             | TD 8775'    | (DVNN) | PBD 8395' |       |    |

IP (Mississippian) Perfs 8320-49' CAOF 3215 MCFGPD. GOR NR;  
 gty (Gas) .6734; (Cond) 64.7

CONTR OPR'S ELEV 3792' GL PD 8395' WO

F.R.C. 5-21-77 OWWO  
 (Mississippian)  
 (Orig. Republic Natural-Seaboard #1 Plains  
 Radio Broadcasting-White Ranch, comp 4-7-53,  
 thru (Devonian) Perfs 8719-69', OTD 8775')  
 5-16-77 TD 8775'; PBD 8395'; Complete  
 PB to 8395'  
 Perf (Mississippian) 8320-49' w/1 SPF  
 Acid (8320-49') 6000 gals  
 (Mississippian) FOUR POINT GAUGES:  
 Flwd 847 MCFGPD, 1.750" orifice, 60 mins, TP 1950#  
 Flwd 1584 MCFGPD, 1.750" orifice, 60 mins, TP 1744#  
 Flwd 2068 MCFGPD, 1.750" orifice, 60 mins, TP 1545#  
 Flwd 2494 MCFGPD, 1.750" orifice, 60 mins, TP 1175#  
 5-3-1 NM

CHAVES  
INGRAM, TOM L.

White Ranch  
1 White Ranch  
Sec 34, T11S, R29E

NM  
Page #2

5-16-77; Continued  
LOGS RUN: CNL, GRL  
5-21-77 COMPLETION ISSUED

5-3-1 NM

|             |   |
|-------------|---|
| SANTA FE    | 1 |
| FILE        | 1 |
| U.S.G.S.    | 2 |
| LAND OFFICE |   |
| OPERATOR    |   |

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

C. C. C.  
ANTHONY, OFFICE

|                                |                                         |
|--------------------------------|-----------------------------------------|
| State <input type="checkbox"/> | Fee <input checked="" type="checkbox"/> |
| 5. State Oil & Gas Lease No.   |                                         |

|                                                                                                                                                                                                                               |                                  |                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------------------------|
| 1. TYPE OF WELL<br>OIL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> OTHER _____                                                                                         |                                  | 7. Unit Agreement Name                                      |
| b. TYPE OF COMPLETION<br>NEW WELL <input type="checkbox"/> WORK OVER <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____ |                                  | 8. Farm or Lease Name<br>White Ranch                        |
| 2. Name of Operator<br>Tom L. Ingram                                                                                                                                                                                          |                                  | 9. Well No.<br>#2                                           |
| 3. Address of Operator<br>P. O. Box 1757, Roswell, New Mexico, 88201                                                                                                                                                          |                                  | 10. Field and Pool, or Wildcat<br>White Ranch-Mississippian |
| 4. Location of Well<br>UNIT LETTER <u>L</u> LOCATED <u>1980</u> FEET FROM THE <u>South</u> LINE AND <u>660</u> FEET FROM<br>THE <u>West</u> LINE OF SEC. <u>34</u> TWP. <u>11S</u> RGE. <u>29E</u> NMPM                       |                                  | 12. County<br>Chaves                                        |
| 15. Date Spudded<br>4-23-53                                                                                                                                                                                                   | 16. Date T.D. Reached<br>7-17-53 | 17. Date Compl. (Ready to Prod.)<br>3-17-77                 |
| 18. Elevations (DF, RKB, RT, GR, etc.)<br>3792 (3782 GL)                                                                                                                                                                      |                                  | 19. Elev. Casinghead                                        |
| 20. Total Depth<br>8808                                                                                                                                                                                                       | 21. Plug Back T.D.<br>8691       | 22. If Multiple Compl., How Many                            |
| 23. Intervals Drilled By<br>Rotary Tools<br>0 - TD                                                                                                                                                                            |                                  | Cable Tools                                                 |
| 24. Producing Interval(s), of this completion - Top, Bottom, Name<br>8302 - 8344' Mississippian                                                                                                                               |                                  | 25. Was Directional Survey Made<br>No                       |
| 26. Type Electric and Other Logs Run<br>No new logs                                                                                                                                                                           |                                  | 27. Was Well Cored<br>No                                    |

| CASING RECORD (Report all strings set in well) |                |           |           |                  |               |
|------------------------------------------------|----------------|-----------|-----------|------------------|---------------|
| CASING SIZE                                    | WEIGHT LB./FT. | DEPTH SET | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
| 13-3/8                                         |                | 79        |           | 220 SX           | -0-           |
| 8-5/8                                          |                | 2146      | 11        | 1400 SX          | -0-           |
| 5-1/2                                          | 15.5 & 17#     | 8807      | 7-7/8     | 145 SX           | -0-           |

| LINER RECORD |     |        |              |        | TUBING RECORD |           |            |
|--------------|-----|--------|--------------|--------|---------------|-----------|------------|
| SIZE         | TOP | BOTTOM | SACKS CEMENT | SCREEN | SIZE          | DEPTH SET | PACKER SET |
|              |     |        |              |        | 2-7/8         | 8286      | None       |

|                                                                                       |  |  |  |                                                |  |  |  |
|---------------------------------------------------------------------------------------|--|--|--|------------------------------------------------|--|--|--|
| 31. Perforation Record (Interval, size and number)<br>8302-10, 20-28, 32-44, .48", 28 |  |  |  | 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. |  |  |  |
| DEPTH INTERVAL                                                                        |  |  |  | AMOUNT AND KIND MATERIAL USED                  |  |  |  |
| 8302-44'                                                                              |  |  |  | F/15000 gals +                                 |  |  |  |
|                                                                                       |  |  |  | 29000 lbs. sd                                  |  |  |  |

|                                  |                            |                                                                                |                              |            |           |                                           |                                   |
|----------------------------------|----------------------------|--------------------------------------------------------------------------------|------------------------------|------------|-----------|-------------------------------------------|-----------------------------------|
| 33. PRODUCTION                   |                            |                                                                                |                              |            |           |                                           |                                   |
| Date First Production<br>3-17-77 |                            | Production Method (Flowing, gas lift, pumping - Size and type pump)<br>Flowing |                              |            |           | Well Status (Prod. or Shut-in)<br>Shut-In |                                   |
| Date of Test<br>3-17-77          | Hours Tested<br>4          | Choke Size<br>Varying                                                          | Prod'n. For Test Period<br>→ | Oil - Bbl. | Gas - MCF | Water - Bbl.                              | Gas - Oil Ratio                   |
| Flow Tubing Press.<br>Varying    | Casing Pressure<br>Varying | Calculated 24-Hour Rate<br>→                                                   | 9                            | 2069 CAOF  |           |                                           | Oil Gravity - API (Corr.)<br>66.4 |

|                                                                       |                                     |
|-----------------------------------------------------------------------|-------------------------------------|
| 34. Disposition of Gas (Sold, used for fuel, vented, etc.)<br>Shut-In | Test Witnessed By<br>Joe A. Coleman |
|-----------------------------------------------------------------------|-------------------------------------|

|                                                               |
|---------------------------------------------------------------|
| 35. List of Attachments<br>Chronological Pressure Data, C-122 |
|---------------------------------------------------------------|

|                                                                                                                                         |                       |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------|
| 36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief. |                       |                    |
| SIGNED <u>Tom L. Ingram</u>                                                                                                             | TITLE <u>Operator</u> | DATE <u>5/9/77</u> |

|                        |                                          |                    |              |                 |
|------------------------|------------------------------------------|--------------------|--------------|-----------------|
| COUNTY                 | CHAVES                                   | FIELD Undesignated | STATE N.M.   | OWWO            |
| OPR                    | SOCONY MOBIL OIL COMPANY, INC.           |                    |              | MAP             |
|                        | 2 White Ranch                            |                    |              |                 |
|                        | Sec. 34, T-11-S, R-29-E                  |                    |              | CO-ORD          |
|                        | 1980' fr S Line & 660' fr W Line of Sec. |                    |              |                 |
|                        | Re-Spud 4-1-64                           | CLASS              | OWD EL 37928 |                 |
|                        | Re-Comp 5-2-64                           | FORMATION          | DATUM        | FORMATION DATUM |
| CSG & SX - TUBING      |                                          |                    |              |                 |
| 5½" 8807' 145          |                                          |                    |              |                 |
|                        |                                          |                    |              |                 |
|                        |                                          |                    |              |                 |
|                        |                                          |                    |              |                 |
| LOGS EL GR RA IND HC A |                                          |                    |              |                 |
|                        | TD 8810', PBD 8691'                      |                    |              |                 |

IP Mississippian Perfs 8302-44' Flwd 588 MCFGPD + 1 B Cond. &  
 7 B BS&W. Pot. Based on 24 hr test thru 32/64" chk., TP 200#,  
 CP 200#.

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|       |            |      |
|-------|------------|------|
| CONT. | PROP DEPTH | TYPE |
| DATE  |            |      |

8-24-64 F.R.C. 8-27-64; OWWO, OTD 8810'.  
 TD 8810', PBD 8691', COMPLETED.  
 Squeezed perfs 8728-8742' W/100 sx.  
 DO to 8691'  
 Perf 8302-10', 8320-28' & 8332-44' W/1 SPF  
 Ac. 5000 gals.

|                        |  |
|------------------------|--|
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| ANTA FE                |  |
| FILE                   |  |
| U.S.G.S.               |  |
| LAND OFFICE            |  |
| OPERATOR               |  |

Form C-105  
Revised 11-4-8

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1. TYPE OF WELL

2. TYPE OF COMPLETION

3. Name of Operator

4. Address of Operator

5. Location of Well

6. UNIT LETTER M LOCATED 990 FEET FROM THE south LINE AND 660 FEET FROM

7. THE WEST

LINE OF SEC. 34 TWP. 11-S RGE. 29-E NMPM

8. Date Spudded

PB 11-26-79

16. Date T.D. Reached

-

17. Date Compl. (Ready to Prod.)

12-14-79

18. Elevations (DF, RKB, RT, GR, etc.)

3778' GR

19. Elev. Casinghead

-

20. Total Depth

8778'

21. Plug Back T.D.

8660'

22. If Multiple Compl., How Many

-

23. Intervals Drilled By

Rotary Tools

Cable Tools

24. Producing Interval(s), of this completion - Top, Bottom, Name

8340-70' Mississippian

25. Was Directional Survey Made

-

26. Type Electric and Other Logs Run

None this completion

27. Was Well Cored

-

28. CASING RECORD (Report all strings set in well)

| CASING SIZE | WEIGHT LB./FT. | DEPTH SET | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
|-------------|----------------|-----------|-----------|------------------|---------------|
| 13-3/8"     | 48             | 62'       | 17-1/2"   | 60 sx.           | 0             |
| 8-5/8"      | 32             | 2134'     | 11"       | 1075 sx.         | 0             |
| 5-1/2"      | 15-1/2, 17, 20 | 8762'     | 7-7/8"    | 125 sx.          | 0             |

29. LINER RECORD

| SIZE | TOP | BOTTOM | SACKS CEMENT | SCREEN |
|------|-----|--------|--------------|--------|
|      |     |        |              |        |

30. TUBING RECORD

| SIZE   | DEPTH SET | PACKER SET |
|--------|-----------|------------|
| 2-7/8" | 8237'     | 8237'      |

31. Perforation Record (Interval, size and number)

8340-60', 8365-70', 52 holes with 4" casing gun

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

| DEPTH INTERVAL    | AMOUNT AND KIND MATERIAL USED                                               |
|-------------------|-----------------------------------------------------------------------------|
| 8340-60, 8365-70' | 5000 SCF nitrogen; 2500 gal. 15% acid, 75 ball sealers, 39,000 SCF nitrogen |

33. PRODUCTION

|                                  |                      |                                                                                |                              |                   |                   |                                             |                                    |
|----------------------------------|----------------------|--------------------------------------------------------------------------------|------------------------------|-------------------|-------------------|---------------------------------------------|------------------------------------|
| Date First Production<br>2-26-80 |                      | Production Method (Flowing, gas lift, pumping - Size and type pump)<br>Flowing |                              |                   |                   | Well Status (Prod. or Shut-in)<br>Producing |                                    |
| Date of Test<br>3-4-80           | Hours Tested<br>24   | Choke Size<br>8/64"                                                            | Prod'n. For Test Period<br>→ | Oil - Bbl.<br>2.3 | Gas - MCF<br>560  | Water - Bbl.<br>0                           | Gas - Oil Ratio<br>243,478 CF/bbl. |
| Flow Tubing Press.<br>1600       | Casing Pressure<br>0 | Calculated 24-Hour Rate<br>→                                                   | Oil - Bbl.<br>2.3            | Gas - MCF<br>560  | Water - Bbl.<br>0 | Oil Gravity - API (Corr.)<br>23.0           |                                    |

34. Disposition of Gas (Sold, used for fuel, vented, etc.)

Sold into pipeline

Test Witnessed by

Dale Bristow

35. List of Attachments

C-104

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED

Pat Budro

TITLE

Regulatory Coordinator

DATE

3-7-80

CD CHAVES POOL WHITE RANCH STATE N.M. KROENLEIN 152-54  
SIL.  
COMPANY Republic Natural Gas Co. et al - #3 - ELEV 3788'  
White Ranch 3789' K B  
LOC 990' FSL & 660' FWL of sec.  
Sec. 34-11S-29E

| ACID OR SHOT                      | CASING RECORD                                               | TYPE                                                                                                             |
|-----------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Acid 250 gals.<br>Perf 28/8743-50 | 13-3/8 76 60<br>8-5/8 2150 1075<br>5-1/2 8774 125<br>2 8748 | Anhy 316<br>Yates 865<br>S.A. 2112<br>Glor 3350<br>Tubb 4880<br>Abo 5693<br>Hueco 6718<br>Miss 8130<br>Dev. 8742 |
| SPD. 11-12-53 COMP. 1-25-54       |                                                             |                                                                                                                  |
| I. P. P. 351 BOPD; 13/64" ck.     |                                                             |                                                                                                                  |
| GR 47.3 BOR 13 TP 195 Per. 8735   |                                                             |                                                                                                                  |
| REMARKS                           |                                                             |                                                                                                                  |

E-Log  
Tb-1091  
DU-4956

CONT'D ON PAGE 2

CD CHAVES POOL WILDCAT STATE N.M. KROENLEIN 152-53  
COMPANY Republic Nat. Gas & Seaboard of Del. - ELEV 3792  
#1 - White Ranch  
LOC 1980' FNL & 660' FWL of  
Sec. 34, T. 11-S, R. 29-E

| ACID OR SHOT                                     | CASING RECORD                                                    | TYPE                                                                                                                               |
|--------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|                                                  | 13 3/8- 89- 150<br>8 3/8-2130- 950<br>5 1/2-8777- 100<br>2 -8764 | Anhy. 345<br>Salt 380<br>Yates 870<br>Queen 1558<br>S. And. 2110<br>Glor. 3350<br>Abo 5645<br>Hueco 6678<br>Bend 8096<br>Miss 8120 |
| SPD. 1-15-53 COMP. 4-7-53                        |                                                                  |                                                                                                                                    |
| I. P. P. 294 BOPD; 1/4" ch.; F. 98 BO/8 hrs.     |                                                                  |                                                                                                                                    |
| GR 47 BOR 46 TP 550 CP Per. 8667                 |                                                                  |                                                                                                                                    |
| REMARKS MORE TOPS; Dev. 8727.<br>CONT'D. PAGE 2. |                                                                  |                                                                                                                                    |

E-Log  
Tb-1090  
DU-4933

TO 8775 delo.  
PSD 8771

CHAVES, NEW MEXICO 34-11-29  
Republic Natural Gas Co. et al - #3 -  
White Ranch

K-152-54

PAGE 2

POPS: Dev. 8742 Water 8761

Crd. 8725-45 rec. 20' drk. gry sh. N.S.  
Crđ. 8745-50 rec. 5' drk. gry sh. N.S.  
Crđ. 8750-57 rec. 6-1/2' (4' drk gry sh, 1/2' sh & dol.,  
2' dol. wuggy por. bleed oil.  
DST 8717-57 op 4 hrs. 17 mins, rec. 2060' free oil, 430'  
HOCM, FP 900 30 min SIP 3625  
DST 8757-65 op 2 hrs. 10 mins, rec. 2990' free oil  
430' OCM, FP 200-1100 30 min SIP 3475#  
DST 8764-7 op 2 hrs. 35 mins, rec. 7730' XW; 270' XWCM  
FP 350 3525 15 min SIP 3525#  
Perf 28/87-50  
Trt. 250 bbls. perfs.

CHAVES, NEW MEXICO. 34-11-29  
Republic Nat. Gas & Seaboard of Del. - #1 - White Ranch.

K-152-83

PAGE 2.

DST 2698-2890 op. 1 hr., rec. 50' SGCM, 700' mud;  
FP 275; SI 975.  
DST 3365-3448 op. 30 mins., rec. 100' mud, 60'  
salty WCM, 90' XW; FP 0; SI 1400.  
DST 8340-8400 op. 1 hr., rec. gas 1 hr., 17  
mins., est. 35,000 CFQPD, rec. 250' HOCM.  
Core 8753-60 rec. 7' frac. dolo. very good poro.  
DST 8715-60 op. 1 hr., gas 39 mins., mud 42 mins.,  
oil 48 mins., F. 12 mins., est. 30 BOPH;  
circ. rec. 6525' oil / 50' HOCM; Gr 48; no  
wtr.; FP 3600; SI 3750.  
Core 8760-8775 rec. 15' coarse xlyn. vug. dolo.  
tr. cht. good fluor. str. & odor.  
DST 8717-81 op. 1 hr., 44 mins., mud 21 mins.,  
oil 29 mins., F. 91 BO/1 hr.; Gr 47; circ.  
CONT'D. PAGE 3.

CHAVES

WHITE RANCH BIA N.MEX. KROENLEIN 152-53  
SILURO-DEV.

COMPANY

Republic Nat. Gas. & Seaboard -#2-  
White Ranch

ELEV. 3792

LOC.

1980' FSL & 660 FWL  
Sec. 34, T-11-S, R-29-E

ACID OR SHOT

CASING RECORD

TOPS

750 gal.  
see remarks13 3/8- 79-220  
8 5/8-2146-1400  
5 1/2-8807-125  
2 -8748A 325  
Y 870  
SA 2115  
Glor 3345  
Tubb 4878  
Abo 5695  
Miss 8126  
Dev 8725

TB-1082

DU-4933

SPD. 4-23-53

COMP. 7-17-53

I. PF 2598.40 BOPD 1/2"chk.  
(2598.40 BOPD)

GR 47 GOR 14 TP 220 Pkr 8663

REMARKS F 982 BO/9 hr.  
Cont. Page 2TP 8725  
TD 8810-dol.

PBD

Co. CHAVES POOL UNDESIGNATED STATE N.M. KROENLEIN  
OWWOCOMPANY Socony Mobil Oil Co., Inc. - #2 - White Ranch  
(fmly. opr. by Republic Nat. Gas. & ELEV. 3792LOC. 1980' FSL & 660' FWL Seaboard Oil Co.) DF  
Sec. 34, T-11-S, R-29-E

PAY STIMULATION

CASING

TOPS

Perf: 8302-old 5 1/2-8807-125  
8344

Miss. 8126

SPD. re-

COMP. 5-2-64

I. P. F. 588,000 CFGPD + 1 bbl. cond.  
+ 7 bbl. BS&W, 32/64"ch.

GR. - GOR - TP 200 CP 200

REMARKS: Sqz. old perfs 8728-8742'  
w/100 sx; DO/8691'. Perf 1SPF:  
8302-10, 8320-28, 8332-44; 5000TP 8302(Miss.)  
TD 8810 dolo.  
PBD 8691  
acid.

CHAVES, N.MEX. 34-11-29

Page 2

Republic Nat. Gas &amp; Seaboard -#2- White Ranch

Core 960-1010 rec. 50' being 19' sh & anhy, 4' dol.  
 3' sh, 1 1/2' dol, good show, 8 1/2' sh & anhy.  
 3' dol good show, 12 1/2' sh

ST 978-1010 op 20 min rec. 15' SOCM  
 8696-8770 op 5 1/2 hr, mud 45 min, O&GCM 70 min  
 died 4 1/2 hr, Fl. rate 10-30 BOPD est. 1 hr.,  
 rec. 8290' O&GCM, rec. 500' brackish wtr. below  
 sub.

Core 8770-8780 rec. 5' frac. dol, odor O&G

ST 8760-8780 op 1 hr rec. 5370' SW

Perf 56/8728-42

sub. 12 to 13 BOPH

750/8728-48 Fl. 982 BO/9 hr. 1/2" ch.

K-152-53

CHAVES, NEW MEXICO. 34-11-29

PAGE 3.

Republic Nat. Gas &amp; Seaboard of Del. - #1 - White Ranch.

rec. est. 8170' oil rec. 400' HO&GCM & 60'  
 brackish wtr. (core analysis cut mud) FF  
 2200; SI 3800.

Perf. 160/8730-8770

Perf. 200/8719-8779

F. 97 BO/4 hrs.; 1/4" ch.

F. 6 BOPH; 1/4" ch.

|                                           |           |                           |           |          |
|-------------------------------------------|-----------|---------------------------|-----------|----------|
| COUNTY CHAVES                             |           | FIELD White Ranch, West-/ |           | STATE NM |
| OPR LOVELAKE I. W.                        |           | /Devonian                 |           | MAP      |
| 2 White Ranch                             |           |                           |           |          |
| Sec. 1, T-12-S, R-28-E                    |           |                           |           | CO-ORD   |
| 1836' fr N Line & 660' fr E Line of Sec.  |           |                           |           |          |
| Spud 11-18-64                             |           | CLASS                     |           | EL 8500' |
| P&A 1-3-65                                | FORMATION | DATUM                     | FORMATION | DATUM    |
| CSG & SX - TUBING<br><br>8 5/8" 1951' 550 | LOG:      |                           |           |          |
|                                           | SA 1790   |                           |           |          |
|                                           | Glor 3120 |                           |           |          |
|                                           | Abo 5350  |                           |           |          |
|                                           | Miss 7644 |                           |           |          |
| LOGS EL GR RA IND HC A                    | Dev 8134  |                           |           |          |
|                                           | TD 8147'  |                           |           |          |

PLUGGED & ABANDONED

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|       |                  |      |
|-------|------------------|------|
| CONT. | PROP DEPTH 8500' | TYPE |
| DATE  |                  |      |

F.R. 11-19-64  
 PD 8500' - Devonian  
 11-23-64 Drlg. 1922'  
 11-30-64 Drlg. 3460'  
 12-7-64 Drlg. 5165'  
 12-14-64 Drlg. 6304' 1m.  
 12-21-64 Drlg. 7409' 1m. & sh.  
 1-4-65 TD 8147', PLUGGED & ABANDONED.  
 DST 7710-8140', open 1 hr 30 mins,  
 Rec 90' drlg fluid  
 FP 201-201#, FSIP 661#.  
 DST 8050-8147', open 1 hr 30 mins,  
 Rec 1080' oil, gravity 46., 150' HO&GCM,  
 870' HG&SOCM + 5430' sul wtr  
 ISIP 3288#. (Tool partially plugged)  
 (Holding for tops)  
 1-11-65 TD 8147', Completion Reported

CO. CHAVES POOL WILDCAT STATE N.M. KROENLEIN 76-53

COMPANY Great Western Drilg.Co. - #1 - White Ranch ELEV. 3620'

LOC. 1980' FNL & FWL of sec.  
Sec. 1, T-12-S; R-28-E

|                                                                                                         |                                  |                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| ACID OR SHOT                                                                                            | CASING RECORD                    | TOPS                                                                                                                                 |
|                                                                                                         | 13-3/8 167 225<br>9-5/8 1899 200 | Anhy 120<br>Yates 820<br>7 River 610<br>Queen 1210<br>S.A. 1770<br>Abo 5120<br>B.Abo 5820<br>Penn tent 6800<br>Miss 7620<br>Dev 8152 |
| SPO. 6-15-53                                                                                            | COMP. 8-24-53                    |                                                                                                                                      |
| I. P. P&A                                                                                               |                                  |                                                                                                                                      |
| GR. BOR TP CP                                                                                           |                                  | TO 8167' dol                                                                                                                         |
| REMARKS DST 8144-67 op 2-1/2 hrs. rec. 450' - 8GCM,<br>900' O&SGCM, 2520' HO&GCSW. PP 1980<br>SIP 3120' |                                  |                                                                                                                                      |

|                                                                                             |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| COUNTY CHAVES, NEW MEXICO. WHITE RANCH, WEST-DEV.                                           |  |  |  |  |  |  |  |  |  |
| OPR. I. W. LOVELADY                                                                         |  |  |  |  |  |  |  |  |  |
| LSE WHITE RANCH                                                                             |  |  |  |  |  |  |  |  |  |
| LOC. Sec. 1, T-12-S-R-28-E, 1836' FNL and 660' FWL of Sec.                                  |  |  |  |  |  |  |  |  |  |
| CO-ORD                                                                                      |  |  |  |  |  |  |  |  |  |
| F.R. 11-19-64 O&J 8500' METHOD SPUD 11-18-64                                                |  |  |  |  |  |  |  |  |  |
| CTR C.R. ELEV D. F. 3690                                                                    |  |  |  |  |  |  |  |  |  |
| LOGS SPTS                                                                                   |  |  |  |  |  |  |  |  |  |
| TO 8147 time PBD ABD LOC. P & A 1-3-65                                                      |  |  |  |  |  |  |  |  |  |
| PAY ZONE TOP PAY PRODUCING INTERVAL IP BO W B&W HRS TEST B2                                 |  |  |  |  |  |  |  |  |  |
| PLUGGED AND ABANDONED                                                                       |  |  |  |  |  |  |  |  |  |
| CHOKE GOR GIV CP TP POT DATE TREATMENT                                                      |  |  |  |  |  |  |  |  |  |
| CSG-TDG-PKR RECORD PRODUCED WITHOUT EXPRESS PERMISSION FROM MIDLAND OIL SCOUTS ASSOCIATION. |  |  |  |  |  |  |  |  |  |
| 8 5/8-1951-550                                                                              |  |  |  |  |  |  |  |  |  |
| COUNTY CHAVES, NEW MEXICO. WHITE RANCH, WEST-DEV.                                           |  |  |  |  |  |  |  |  |  |
| WELL: I. W. LOVELADY #2 WHITE RANCH                                                         |  |  |  |  |  |  |  |  |  |
| ELEV 3690                                                                                   |  |  |  |  |  |  |  |  |  |
| DATE WELL RECORD                                                                            |  |  |  |  |  |  |  |  |  |
| P&A 1-3-65                                                                                  |  |  |  |  |  |  |  |  |  |
| S.A. (1790)                                                                                 |  |  |  |  |  |  |  |  |  |
| DST 7710-8140 open 1 hr. 30 min. rec.                                                       |  |  |  |  |  |  |  |  |  |
| Glor. (3120)                                                                                |  |  |  |  |  |  |  |  |  |
| 90' DF FP 201-201 PSIP 661#                                                                 |  |  |  |  |  |  |  |  |  |
| Abo (5350)                                                                                  |  |  |  |  |  |  |  |  |  |
| DST 8050-8147 open 1 hr. 30 min. rec.                                                       |  |  |  |  |  |  |  |  |  |
| Miss. (7644)                                                                                |  |  |  |  |  |  |  |  |  |
| 1080' oil, gty. 46, 150' HO&GCM, 870'                                                       |  |  |  |  |  |  |  |  |  |
| Dev. (8134)                                                                                 |  |  |  |  |  |  |  |  |  |
| HG&SGCM + 5430' svl. wtr. ISIP 3288,                                                        |  |  |  |  |  |  |  |  |  |
| tool partially plugged.                                                                     |  |  |  |  |  |  |  |  |  |

CO. CHAVES

POOL WILDCAT

STATE N.M. KROENLEIN 126-54

COMPANY Jack Markham - #1 - Union-White Ranch ELEV. 3681'

LOC. 660' FSL &amp; FWL of sec.

Sec. 1-128-28E.

| ACID OR SHOT  | Casing Record    |          | TUBS                |        |
|---------------|------------------|----------|---------------------|--------|
|               | 13-3/8           | 155 175  | Anhy                | 235    |
|               | 9-5/8            | 1900 350 | Yates               | 525    |
|               |                  |          | Queen               | 1221   |
|               |                  |          | SA                  | 1773   |
|               |                  |          | Glor                | 3000 ● |
|               |                  |          | Abo red sh          | 5335   |
|               |                  |          | Abo ls              | 6323   |
|               |                  |          | Penn                | 6870   |
|               |                  |          | Miss                | 7652   |
|               |                  |          | Dev.                | 8210   |
| SPD. 10-1-54  | COMP. 12-2-54    |          | TO 8260' dol & oht. |        |
| I. P. PEA     |                  |          | PHO                 |        |
| GR. GOR TP CP |                  |          |                     |        |
| REMARKS       | CONT'D ON PAGE 2 |          |                     |        |

CO. CHAVES

POOL WILDCAT

STATE N.M. KROENLEIN 192-59

PRE-PERMIAN DEVONIAN DISCOVERY

COMPANY J. C. Williamson - #1 - White Ranch ELEV. 3695 DF

660' FNL &amp; FEL

Sec. 1, T.12-S. R. 28-E

8500' (corr.) from 850'

| ACID OR SHOT                  | Casing Record   |           | TUBS    |      |
|-------------------------------|-----------------|-----------|---------|------|
|                               | 8 5/8           | 1967- 600 | Yates   | 610  |
| OH/500 acid-                  | 5 1/2           | 3123- 150 | S. And. | 1330 |
| 3123-40                       |                 |           | Abo     | 5390 |
|                               |                 |           | Miss.   | 7640 |
|                               |                 |           | Dev.    | 3132 |
| 6-10-59                       | 7-22-59         |           |         |      |
| F. 389 80/24 hrs., 20/64" ch. |                 |           | 3132    |      |
| 45. 500 TSTM SI=1200          | 800             |           | 3140 L. |      |
| REMARKS                       | CONT'D. PAGE 2. |           |         |      |

CHAVES, N.M. SEC. 1-123-28E  
Jack Markham - #1 - Union-White Ranch

K-126  
HUE 3

DST 8213-20 had hole in drill pipe rec. 1200' mud NS.  
DST 8214-35 op 3 hr 15 mins, rec. 38' mud, FP 15-30  
15 min SIP -0-  
DST 8214-60 op 4 hrs. rec. 540' MCSW, FP 55-305 15 min  
SIP 3050#

CHAVES, N.M. 1-12-28  
J. C. Williamson - #1 - White Ranch

K-10259  
PAGE 2

DST 8100-40, op. 1 1/2 hrs. rev out 990' free oil  
rec. below sub 60' HO&SGCM, 450' HO&SGCM, FP 55-510  
SIP 3295/30".  
C/O TD 8140; 500 C. NA flo. load, flwd @ rate of 10 BNOPH  
Grav. 45.5, TP 500# CP 800#; P. 339 BO/24 hrs.,  
20/64" ch.; Gr. 45; TP 75#; SITP 600#.

WILDCAT

RICHFIELD OIL CORPORATION  
WELL HISTORY CARD

FORM 762 10M 1-46

LOG ☒  
PLOTTED  
ELEC. LOG

COUNTY CHAVES POOL Wildcat STATE New Mexico ELEV. 3710'  
COMPANY Richfield Oil Corporation LEASE White, J. P. WELL NO. 3-1  
LOCATION FR. 660' FR. S. 1980' FR. E. -1980' FR. W.

| SECTION 6        |  |  | BLK.           | TWP.   | 12-S   | R.                | 29-E | SURVEY |                        |
|------------------|--|--|----------------|--------|--------|-------------------|------|--------|------------------------|
| SHOOTING RECORD  |  |  | CASING RECORD  |        |        | DEPTH             |      |        | DATUM                  |
|                  |  |  | SIZE           | LANDED | CEMENT | T. A.             |      |        |                        |
|                  |  |  | 11 3/4         | 1850   | 1200   | T. S.             |      |        |                        |
|                  |  |  | 7 w/pkr @2465  |        |        | B. S.             |      |        |                        |
| ACID TREATMENT   |  |  |                |        |        | T. YATES          |      |        | 630' S                 |
|                  |  |  |                |        |        | Seven Rivers      |      |        | 720' S                 |
|                  |  |  |                |        |        | Queens            |      |        | 1312' S                |
|                  |  |  |                |        |        | T. S. A.          |      |        | 1870' S                |
|                  |  |  |                |        |        | B. S. A.          |      |        |                        |
| LOCATION 2-12-47 |  |  | SPUDDED 3-3-47 |        |        | COMPLETED 7-13-47 |      |        | Glor. 3100' Sch.       |
| ROTARY TO        |  |  | CABLE TO       |        |        |                   |      |        | Abo 5420' Sch.         |
| I. P.            |  |  |                |        |        |                   |      |        | Huaco 6370' Sch.       |
| GRAVITY          |  |  | G. O. R.       |        |        | T. P.             |      |        | Penn 6620' Sch. ?      |
| REMARKS          |  |  |                |        |        |                   |      |        | Miss 7750' Sch.        |
|                  |  |  |                |        |        |                   |      |        | Sil. 8295' Sch. (5050) |
|                  |  |  |                |        |        |                   |      |        | T. P. P & A            |
|                  |  |  |                |        |        |                   |      |        | T. D. 9058' gneiss     |
|                  |  |  |                |        |        |                   |      |        | P. B. D.               |
| (OVER)           |  |  |                |        |        |                   |      |        |                        |

COUNTY CHAVES POOL WILDCAT STATE N. M. KROENLEIN 95-53  
COMPANY N. B. Hunt - #3-1 - J. P. White ELEV. 3710  
(Orig. Drig. Richfield Oil - #1 - White Card #182)  
LOG 660' PSL & 1980' FWL  
Sec. 6, T. 12-S, R. 29-E

| ACID OR SHOT                           | CASING RECORD | TOPS           |
|----------------------------------------|---------------|----------------|
|                                        |               | Sil.-Dev. 8320 |
| 8-1-53 COMP 8-12-53                    |               |                |
| I. P. P & A                            |               |                |
| GR. GOR TP CP                          |               | TP             |
| REMARKS DST 8324-8366 op. 2 hrs., rec. |               | TD 9058 Gr.    |
| 6444' break. wtr.                      |               | PBD            |

FDX

[illegible]

CHAVES COUNTY

NEW MEXICO

WILDCAT

Well DEPCO, INC. 1 Sundance Federal "B"

Result: DGA

WF

Loc: 30 mi SE/Hagerman, 1980' FS&amp;EL's Sec II-12S-29E.

Spud: 6-27-78; Comp: 8-10-78; Elev: 3802' grd; TD: 9217' Dev;

Casing: 13 3/8" 315'/350 sx, 8 5/8" 2279'/1260 sx

Comp Info: DST-SP (Miss) 8765-8845', op 1 hr, (Sampler rec 1700 cc's DF @ 50#); 1 hr  
ISIP 131#, FP 22-22#, 3 hr FSIP 283#, HP 4477-4499#; ran CNI, FDC, BHC & DILL  
logs; C/Morancho.Tops: (EL) Yates 970', San And 2237', Glor 3620', Tubb 5030', Abo 5864', Wolfe 6800',  
Cisco 7474', Cany 7710', Strawn 8116', Satoka 8418', Miss 8614', Dev 9189'

API No.: 30-005-60495

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Petroleum Information

CORPORATION

A Subsidiary of A.C. Nielsen Company

Date: 9-20-78

Card No. 2 rm

CO CHAVES

POOL W. WHITE RANCH STATE N.M. KROENLEIN 192-59  
-DEVONIAN

COMPANY J. C. Williamson - #2 - White Ranch

Elev 3693

LOC 990' FNL & 660' FWL  
Sec. 6, T. 12-S, R. 29-E  
8500'

ACID OR SHOT

CASING RECORD

8 5/8- 492- 450

|         |      |
|---------|------|
| Yates   | 575  |
| S. And. | 1320 |
| Glor.   | 3140 |
| Tubb    | 4570 |
| Abo     | 5330 |
| Miss.   | 7658 |

SPD 11-15-59 COMP 12-31-59

I.P. P P A

G\* BOR

TP

CP

REMARKS

8166 L.

2693

473



COUNTY CHAVES FIELD Wildcat STATE NM  
OPR DEPCO, INC. API 30-005-60495  
W 1 LEASE Sundance Federal "B" MAP  
Sec 11, T12S, R29E COORD  
1980' FSL, 1980' FEL of Sec 9-3-2 NM  
30 mi NE/Hagerman SPD 6-27-78 CMP 8-10-78

|                                                              |                                       |       |           |       |
|--------------------------------------------------------------|---------------------------------------|-------|-----------|-------|
| CNC<br>13 3/8" at 315' w/350 sx<br>8 5/8" at 2279' w/1260 sx | WELL CLASS: INIT WF FIN WF ELEV L & S |       |           |       |
|                                                              | FORMATION                             | DATUM | FORMATION | DATUM |
|                                                              |                                       |       |           |       |
|                                                              |                                       |       |           |       |
|                                                              |                                       |       |           |       |
|                                                              | ID 9217' (DVNN)                       |       | PRO       |       |

DRY & ABANDONED

CONTR Moranco OPERNLEV 3802' GL PD 9027' RT

F.R. 2-27-78  
(Mississippian)  
7-18-78 Drlg 6810' lm & sh  
7-24-78 Drlg 7765'  
7-31-78 Drlg 8651' lm & sh  
8-7-78 Drlg 9128'  
8-14-78 TD 9217'; D&A (Hold)  
DST-SP (Mississippian) 8765-8845' op  
1 hr (Sampler rec 1700 cc's DF @ 50#)  
1 hr ISIP 131#, FP 22-22#, 3 hr FSIP  
283#, HP 4477-4499#  
9-11-78 TD 9217'; Dry & Abandoned  
LOG TOPS: Yates 970', San Andres 2237',  
Glorieta 3620', Tubb 5030', Abo 5864',  
Wolfcamp 6800', Cisco 7474', Canyon 7710',  
Strawn 8116', Atoka 8418', Mississippian

9-3-2 NM

---

CHAVES  
DEPCO, INC.

Wildcat  
1 Sundance Federal "B"  
Sec 11, T12S, R29E

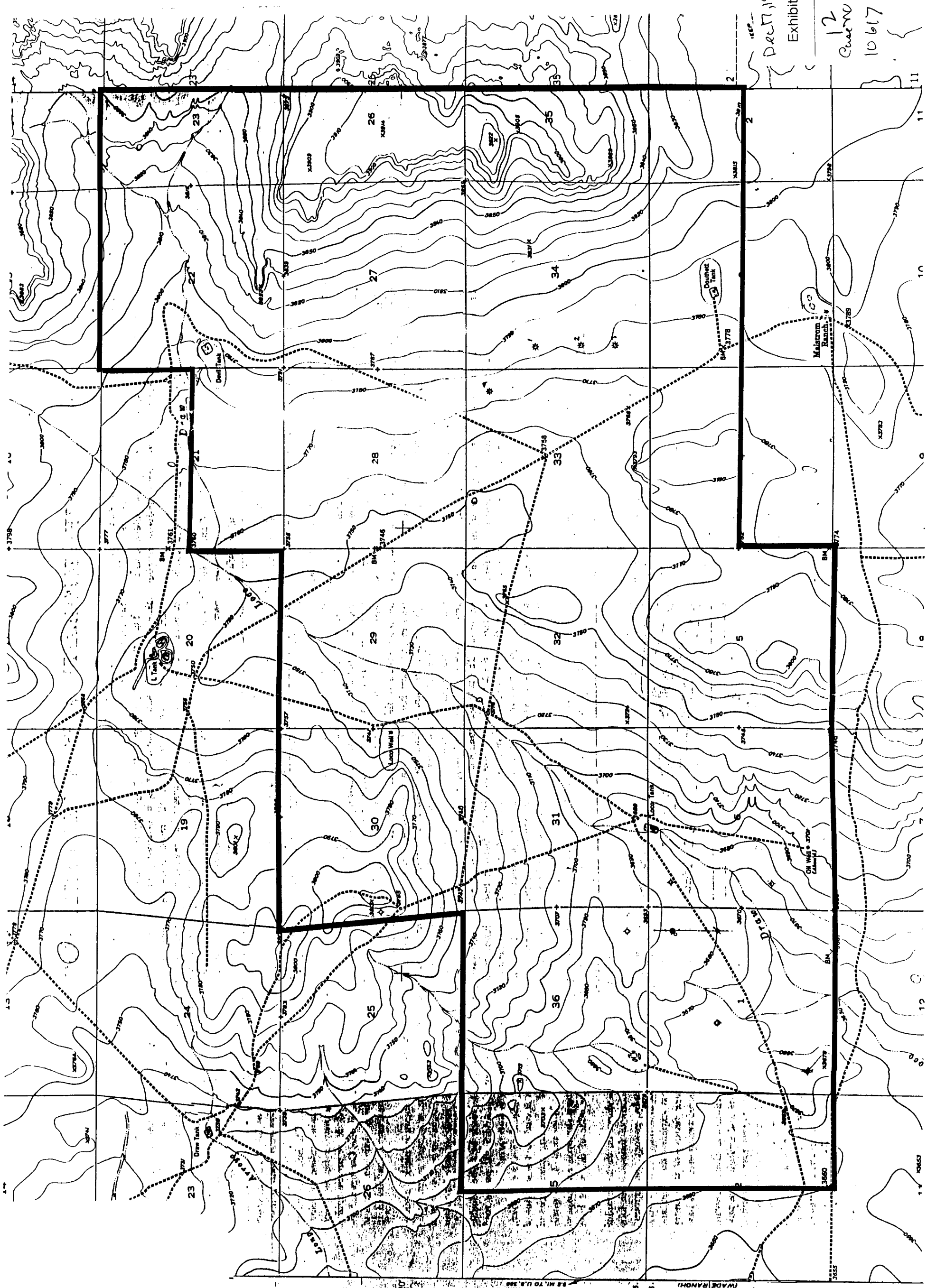
NM  
Page #2

9-11-78      Continued  
8614', Devonian 9189'  
LOGS RUN: CNL, FDC, BHC, DILL  
9-16-78      COMPLETION ISSUED

9-3-2 NM  
IC 30-005-70024-78

---

---



Dec 17, 1992  
Exhibit

12  
Cuew  
10617

T. 11 S.  
T. 12 S.  
8.5 MI. TO U.S. 268  
(WADSWORTH)

C.W. TRAINER  
 WHITE RANCH #4  
 WHITE RANCH MISSISSIPPIAN  
 660' FNL & 660' FEL, SEC 33-T11S-R29E  
 CHAVES COUNTY, N.M.

PERFORATED INTERVAL 8502' TO 8535'

(11' DEPTH CORRECTION)  
 C. W. TRAINER  
 BEFORE EXAMINER STOGNER  
 NMOC CASE NO. 10617  
 DATE: 12/17/92  
 EXHIBIT NO. 13

FLOW  
 CAPACITY  
 Kr  
 vs.  
 Slw

WETTING  
 FLUID

### CORE DATA

| DEPTH<br>TOP | DEPTH<br>BOTTOM | PERM.<br>MD. | POROSITY<br>% | FEET<br>FT. | CAPACITY<br>MD.-FT. | POROSITY<br>-FT. | Sw<br>% | SATURATION (WETTING<br>LIQUID)<br>MD.-FT. |
|--------------|-----------------|--------------|---------------|-------------|---------------------|------------------|---------|-------------------------------------------|
| 8491.0       | 8494.0          | *            | *             | *           | *                   | *                | *       | *                                         |
| 8494.0       | 8495.4          | 0.017        | 5.2           | 1.4         | 0.02                | 7.28             | 34.3    | 0.0158                                    |
| 8495.4       | 8496.9          | 0.005        | 3.1           | 1.5         | 0.01                | 4.65             | 15.0    | 0.0068                                    |
| 8496.9       | 8498.2          | 0.015        | 5.0           | 1.3         | 0.02                | 6.50             | 35.3    | 0.0130                                    |
| 8498.2       | 8499.5          | 0.016        | 5.1           | 1.3         | 0.02                | 6.63             | 38.2    | 0.0116                                    |
| 8499.5       | 8501.3          | 0.300        | 6.6           | 1.8         | 0.54                | 11.88            | 44.8    | 0.2322                                    |
| 8501.3       | 8503.0          | 0.031        | 6.1           | 1.7         | 0.05                | 10.37            | 40.2    | 0.0274                                    |
| 8503.0       | 8504.4          | 0.011        | 4.5           | 1.4         | 0.02                | 6.30             | 32.3    | 0.0108                                    |
| 8504.4       | 8505.4          | 0.004        | 3.0           | 1.0         | 0.00                | 3.00             | 59.3    | 0.0010                                    |
| 8505.4       | 8506.7          | 0.006        | 3.5           | 1.3         | 0.01                | 4.55             | 48.3    | 0.0027                                    |
| 8506.7       | 8508.0          | 0.100        | 6.2           | 1.3         | 0.13                | 8.06             | 40.6    | 0.0650                                    |
| 8508.0       | 8509.0          | 0.050        | 6.9           | 1.0         | 0.05                | 6.90             | 39.4    | 0.0270                                    |
| 8509.0       | 8510.8          | 0.300        | 8.8           | 1.8         | 0.54                | 15.84            | 34.5    | 0.3888                                    |
| 8510.8       | 8512.0          | 0.400        | 12.7          | 1.2         | 0.48                | 15.24            | 51.2    | 0.2736                                    |
| 8512.0       | 8513.2          | 0.100        | 10.1          | 1.2         | 0.12                | 12.12            | 39.5    | 0.0624                                    |
| 8513.2       | 8514.6          | 0.400        | 9.6           | 1.4         | 0.56                | 13.44            | 44.2    | 0.2240                                    |
| 8514.6       | 8516.1          | 0.100        | 8.6           | 1.5         | 0.15                | 12.90            | 34.8    | 0.1050                                    |
| 8516.1       | 8517.6          | 0.200        | 9.3           | 1.5         | 0.30                | 13.95            | 34.5    | 0.2100                                    |
| 8517.6       | 8519.0          | 0.300        | 10.4          | 1.4         | 0.42                | 14.56            | 34.9    | 0.2940                                    |
| 8519.0       | 8520.1          | 0.300        | 9.7           | 1.1         | 0.33                | 10.67            | 34.9    | 0.2310                                    |
| 8520.1       | 8521.6          | 0.200        | 9.7           | 1.5         | 0.30                | 14.55            | 35.6    | 0.2040                                    |
| 8521.6       | 8523.0          | 0.100        | 9.4           | 1.4         | 0.14                | 13.16            | 38.8    | 0.0840                                    |
| 8523.0       | 8524.1          | 0.300        | 9.1           | 1.1         | 0.33                | 10.01            | 47.9    | 0.1122                                    |
| 8524.1       | 8525.6          | 0.100        | 8.0           | 1.5         | 0.15                | 12.00            | 41.3    | 0.0750                                    |
| 8525.6       | 8526.6          | 0.016        | 5.1           | 1.0         | 0.02                | 5.10             | 23.7    | 0.0128                                    |
| 8526.6       | 8528.1          | 0.013        | 4.7           | 1.5         | 0.02                | 7.05             | 27.4    | 0.0144                                    |
| 8528.1       | 8529.4          | 0.033        | 6.2           | 1.3         | 0.04                | 8.06             | 53.6    | 0.0137                                    |
| 8529.4       | 8530.4          | 0.200        | 7.7           | 1.0         | 0.20                | 7.70             | 46.2    | 0.0800                                    |
| 8530.4       | 8531.5          | 0.400        | 9.4           | 1.1         | 0.44                | 10.34            | 42.5    | 0.2112                                    |
| 8531.5       | 8532.8          | 0.013        | 4.7           | 1.3         | 0.02                | 6.11             | 51.3    | 0.0056                                    |
| 8532.8       | 8534.0          | 0.015        | 5.0           | 1.2         | 0.02                | 6.00             | 53.6    | 0.0054                                    |
| TOTAL        |                 |              |               | 40.0        | 5.44                | 284.92           |         | 3.0204                                    |

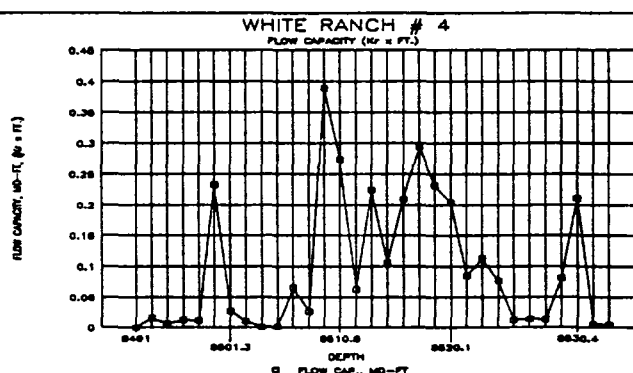
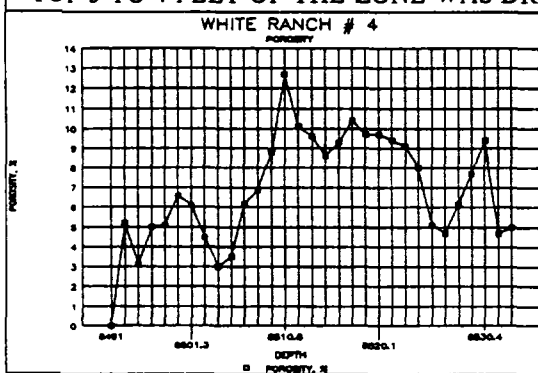
AVERAGE POROSITY

7.12

Kr =

0.0755

\* TOP 3 TO 4 FEET OF THE ZONE WAS DRILLED



### CORE ANALYSIS METHODOLOGY

Permeabilities below 0.1 md. were estimated from the graph "Porosity vs. Perm.", (Exhibit # 15), by finding the known porosity on the bottom axis, then moving upward to the intersection of the Porosity vs. Perm. line, then moving to the left to read the estimated perm.

The permeability times the net core length calculates the flow capacity for each core interval.

When the formation is wetted, as it would be in the in situ condition, the permeability is reduced in relation to the amount of liquid saturation. Using a relative permeability chart from the Petroleum Engineering Handbook, (Exhibit # 14), the percent permeability reduction can be estimated for each core interval using the water saturation number reported in the core analysis. The calculation results in a flow capacity of 3.0204 md.-ft. for the 40 foot interval. By dividing the flow capacity number, 3.0204 md.-ft., by the net feet, 40 ft., results in average relative permeability of the production interval of .0755 md.

This analysis does not consider the reduction in permeability due to overburden pressure and the introduction of oil as a third phase. Permeabilities may be a few percentage points higher if the difference in viscosity of the gas is less than the viscosity of the air used for the core analysis.

It is my opinion that the average in situ permeability will be less than the .0755 md. which has been calculated.

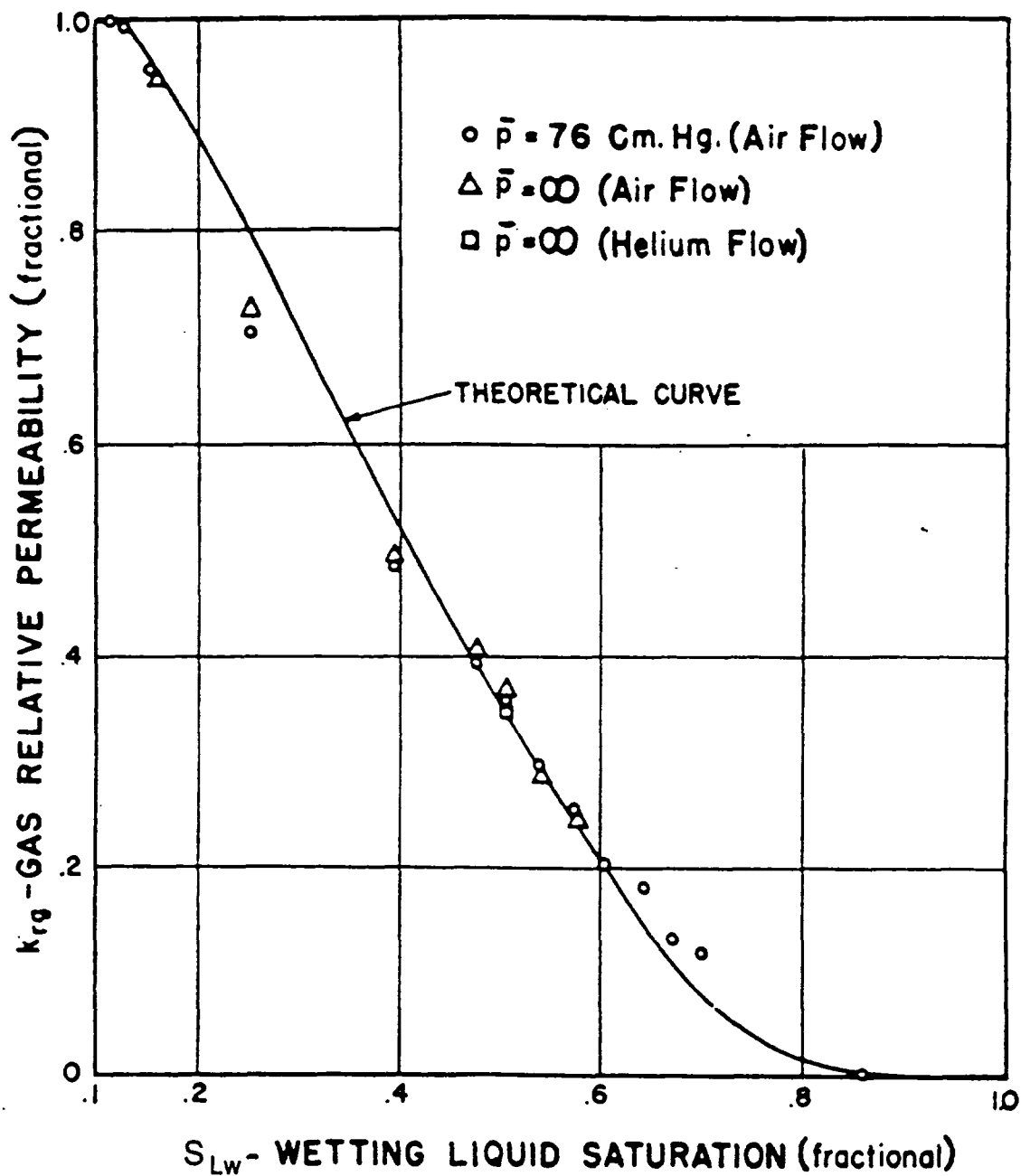


Fig. 28.7—Gas relative permeability vs. total wetting-liquid saturation.

Reference

Bradley, H.B., *Petroleum Engineering Handbook*, Society of Petroleum Engineers, Richardson, Texas, (1987), p. 28-8

White Ranch #4  
8494'-8534'

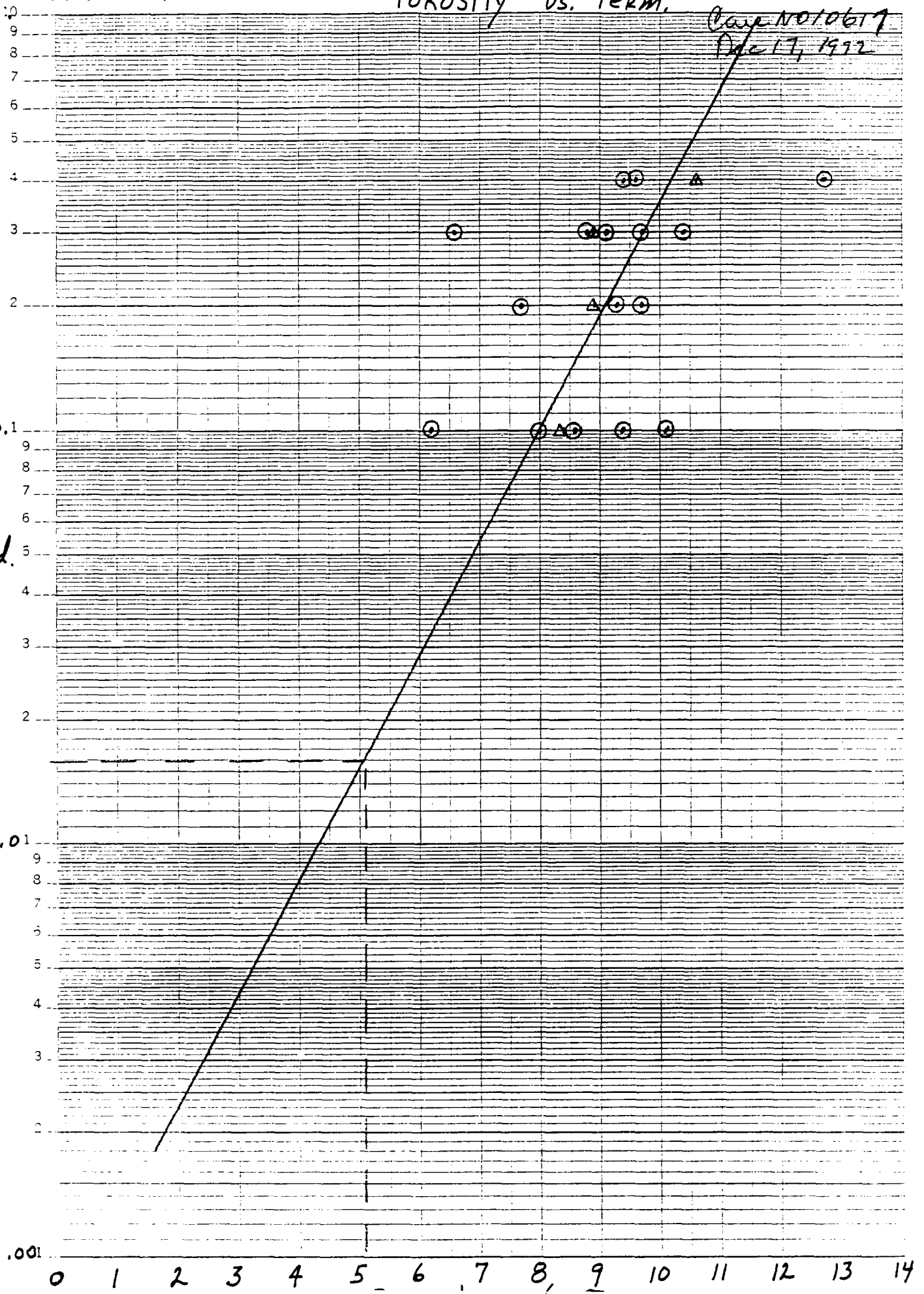
POROSITY vs. Perm.

#15

Core NO 10617  
Dec 17, 1992

46 5810  
K, md.

SEMI-LOGARITHMIC 3 CYCLES x 140 DIVISIONS  
KEUFFEL & ESSLER CO. MADE IN U.S.A.



White Ranch #4

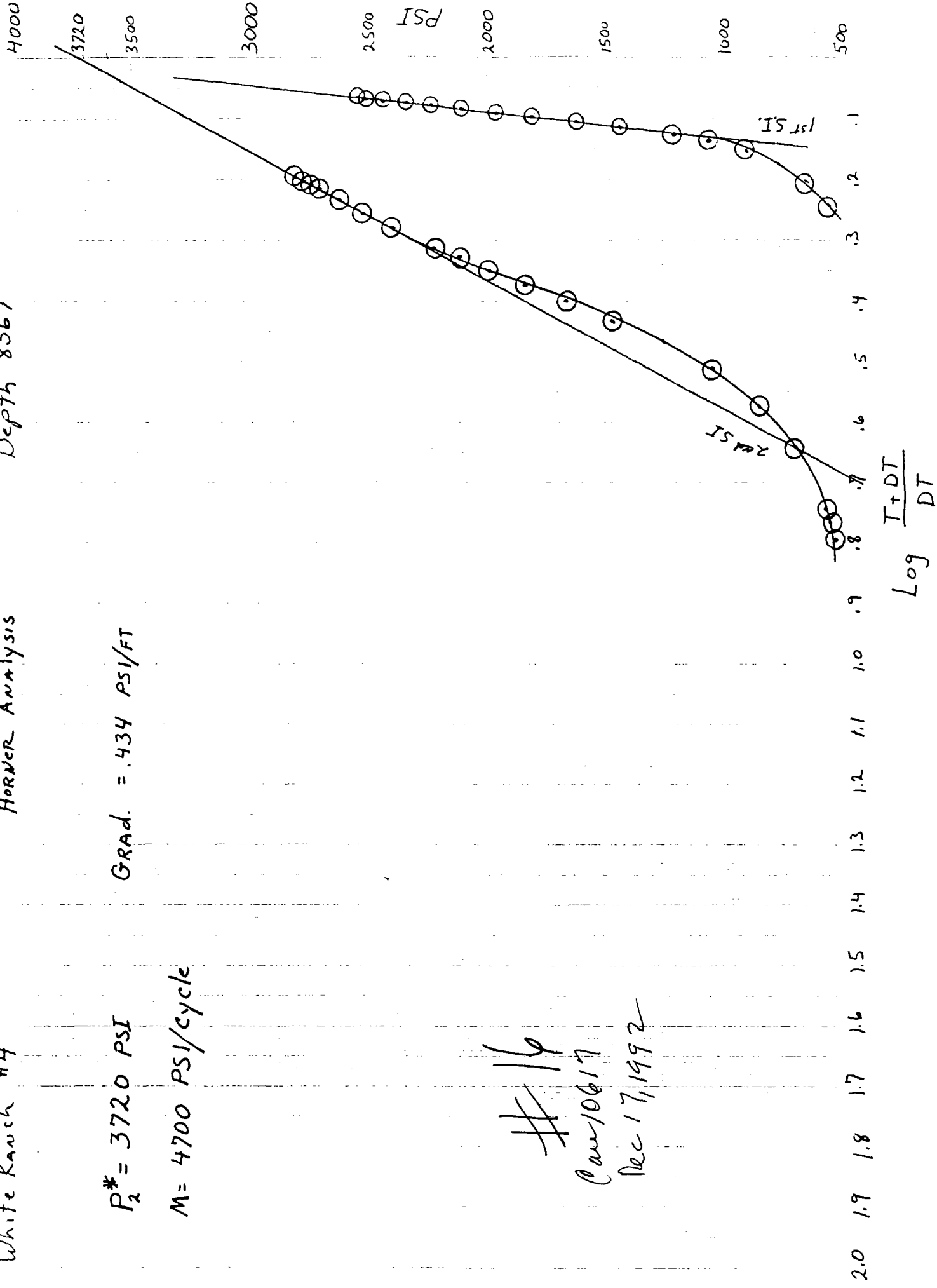
HORNER ANALYSIS

Depth 8567'

$$P_2^* = 3720 \text{ PSI}$$

$$M = 4700 \text{ PSI/cycle}$$

$$\text{GRAD.} = .434 \text{ PSI/FT}$$



#16

Jan 10 617

Dec 17, 1992

QUALITATIVE ANALYSIS - DST # 4 8480' to 8573'

DST #4 was a good mechanical test in which the test tools functioned properly.

Recovery was 500 feet , 2.45 bbls, of slightly gas cut mud, total flow time was 136 minutes.

The sampler contained 2240 cc of mud at 250 psi, no measurable quantities of reservoir fluids were recovered.

Shut-in curves indicate a low permeability formation, without damage. The first shut-in , total 90 minutes, was not adequate to reach the straight line portion of the curve. The second shut-in, total 240 minutes, reached the straight line portion of the curve after being shut-in for 160 minutes. The pressure was building at a rate of 5.98 psi/min. at the 160 minute shut-in time. This yielded a line with a slope value of 4700 psi/cycle.

The slope value is high and is indicative of a low permeability formation. An example calculation was made using this slope and a flow rate of 30 MCFGD. This example calculation yield a permeability for the 44 foot interval of .001 md.

This tests indicates a reservoir that is not capable of commercial production in its natural state.

## Example: GAS Calculation

Assumed Rate - 30 mcfGD

$P^*$  - 3720 PSI

$P_{i0}$  - 980 psi

$T_R (460^\circ R + 135^\circ)$  - 595 °R

$Z$  - .86

$$\frac{kh}{\mu} = \frac{1637 \times Q_g \times Z \times T}{(P^{*2} - P_{i0}^2)}$$

$$\frac{kh}{\mu} = \frac{1637 \times 30 \times .86 \times 595}{14,798,800} = 1.698 \frac{\text{md-ft}}{\text{cP}}$$

$$kh = 1.698 \times \mu_g$$

$$\mu_g = .025 \text{ cP}$$

$$kh = 1.698 \times .025 = .042 \text{ md-ft}$$

$$K = \frac{.042}{h}$$

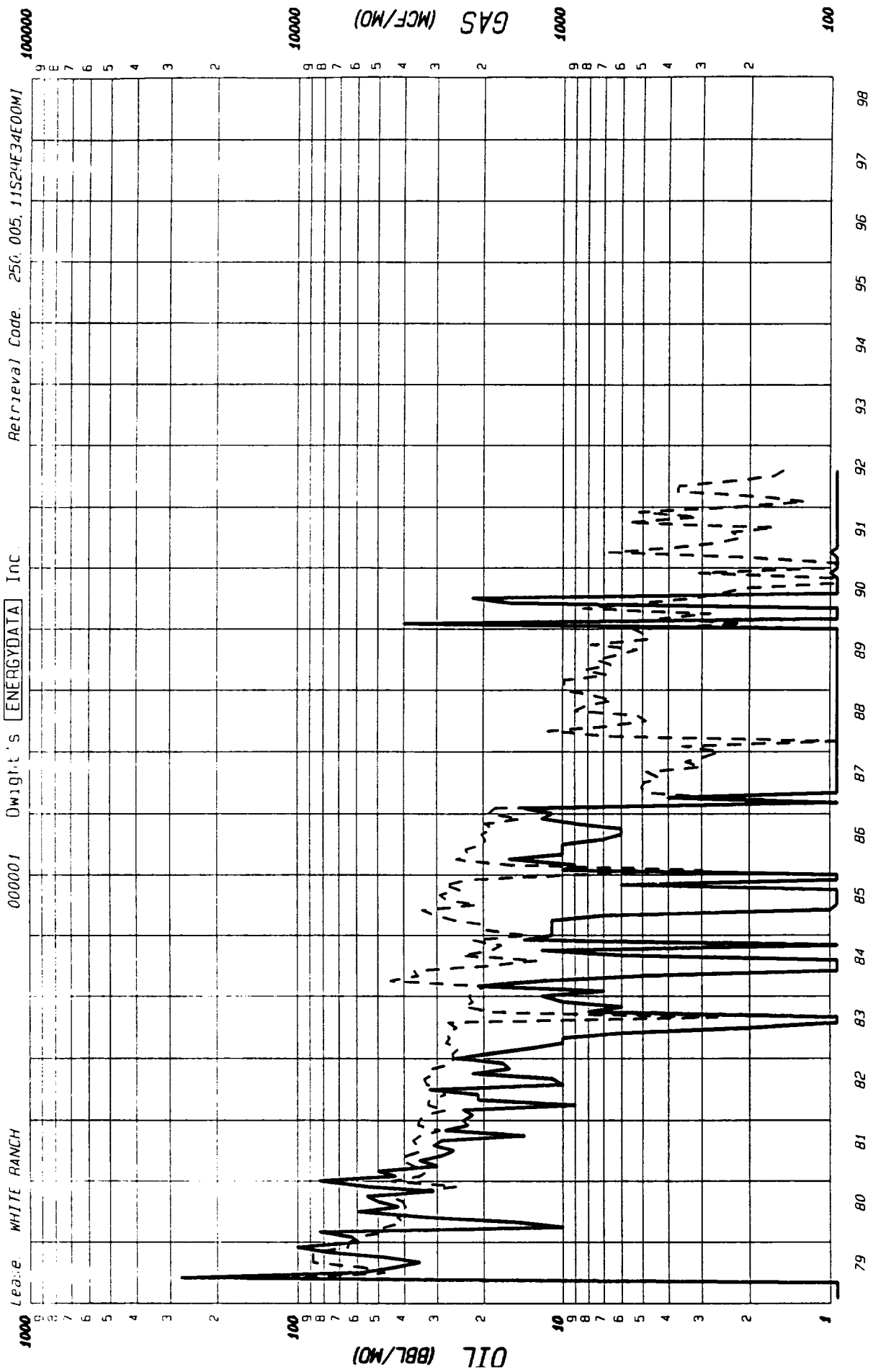
$$K = \frac{.042}{44} = .001 \text{ md}$$

MISSISSIPPIAN WELLS WHICH HAVE PRODUCED IN CHAVES COUNTY NEW MEXICO

| <u>WELL NAME</u>      | <u>LOCATION</u> | <u>MAXIMUM PRODUCTION</u> |                           | <u>CUMULATIVE</u>        |                         |
|-----------------------|-----------------|---------------------------|---------------------------|--------------------------|-------------------------|
|                       |                 | <u>GAS</u><br><u>MCFD</u> | <u>OIL</u><br><u>BOPD</u> | <u>GAS</u><br><u>MCF</u> | <u>OIL</u><br><u>BO</u> |
| WHITE RANCH #1        | 34E-T11S-R29E   | 306.45                    | 8.71                      | 328,298                  | 2,312                   |
| WHITE RANCH #2        | 34L-T11S-R29E   | 251.61                    | 4.84                      | 183,302                  | 1,802                   |
| WHITE RANCH #3        | 34M-T11S-R29E   | 290.32                    | 2.26                      | 186,400                  | 1,383                   |
| WHITE RANCH #4        | 33A-T11S-R29E   | 170.97                    | 10.65                     | 67,310                   | 2,211                   |
| ESTELLE FEDERAL #1    | 34E-T12S-R30E   | 129.03                    | 0.00                      | 8,004                    | 0                       |
| HUDSON FED. #1        | 27M-T12S-R30E   | 1806.45                   | 77.42                     | 1,020,220                | 8,027                   |
| BIKAR FED. #1         | 14G-T10S-R29E   | 322.58                    | 3.71                      | 191,138                  | 726                     |
| WHITWORTH RU ST. #1   | 12H-T9S-R26E    | 9.03                      | 0.00                      | 808                      | 0                       |
| O'BRIAN RANCH #1      | 26G-T8S-R29E    | 22.90                     | 0.00                      | 4,094                    | 0                       |
| GEN. AMERICAN FED. #1 | 7E-T7S-R31E     | 25.16                     | 0.81                      | *                        | *                       |
| CHATTEN & MUNCY #1    | 18O-T6S-R28E    | 306.45                    | 0.00                      | 21,176                   | 0                       |
| PLAINS 16 ST. #1      | 16B-T11S-R28E   | 58.06                     | 0.00                      | 22,280                   | 0                       |
| TOTAL                 |                 |                           |                           | 2,033,030                | 16,461                  |
| 12 WELL AVERAGE       |                 |                           |                           | 169,419                  | 1,372                   |

\* BAD DATA

#17  
Case NO 10617  
Dec 17, 1992



|                                    |                 |
|------------------------------------|-----------------|
| County: CHAVES                     | State: NM       |
| Field: WHITE RANCH (MISSISSIPPIAN) | MI              |
| Reservoir: MISSISSIPPIAN           |                 |
| Operator: TRAINER C W              |                 |
| Oil Cum: 2312                      | Gas Cum: 328298 |
| Location: 34F 11S 29E              |                 |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 3 Run date: 12/13/92  
 Property data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E34E00MI

| Operator (#737018) |  | Lease name  |  | Well # |  |
|--------------------|--|-------------|--|--------|--|
| TRAINER C W        |  | WHITE RANCH |  | 000001 |  |

| Ident. #      | State  | Dist | County     | Location    | Lse/tax /unit # |
|---------------|--------|------|------------|-------------|-----------------|
| 11S29E34E00MI | NM(30) | 2    | 005 CHAVES | 34E 11S 29E | 0               |

| API #        | Field (#8081124 )           | MI | Reservoir     |
|--------------|-----------------------------|----|---------------|
| 30-005-00424 | WHITE RANCH (MISSISSIPPIAN) | MI | MISSISSIPPIAN |

| Total Depth | Perforations<br>Upper Lower |   | Temp Gradient | N-Factor | GOR |
|-------------|-----------------------------|---|---------------|----------|-----|
| 0           | 0                           | 0 | 0.000         | 0.000    | 0   |

| Comp Date | Production Dates<br>First Last |      | Status Date | Status |
|-----------|--------------------------------|------|-------------|--------|
| 0         | 7905                           | 9207 | 0           | ACT    |

| Cumulative gas MCF | Since   | Gas Gravity | Gas Gatherer |
|--------------------|---------|-------------|--------------|
| 328298             | FP Date | 0.00        | SMI          |

| Cumulative liquid BBL | Since   | Liquid Gravity | Liquid Gatherer |
|-----------------------|---------|----------------|-----------------|
| 2312                  | FP Date | 0.00           | DIA             |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 3 Run date: 12/13/92  
 Gas test data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E34E00MI  
 Lease: WHITE RANCH Well #: 000001

| Test<br>Date | Cum at<br>Test | WHSIP | BHP | BHPZ | M/C | Type<br>Pot | bd<br>water | bd<br>cond | whflow | poten | init<br>test |
|--------------|----------------|-------|-----|------|-----|-------------|-------------|------------|--------|-------|--------------|
| 790919       | 34883          | 905   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 800819       | 94018          | 771   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 810722       | 135280         | 792   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 820722       | 174047         | 741   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 830727       | 208171         | 886   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 840706       | 235401         | 855   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 850831       | 266784         | 513   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 861006       | 292528         | 536   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 870705       | 301095         | 773   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 880722       | 306788         | 13    | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 890719       | 316316         | 593   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 900616       | 321810         | 1213  | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 910807       | 324953         | 1031  | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |

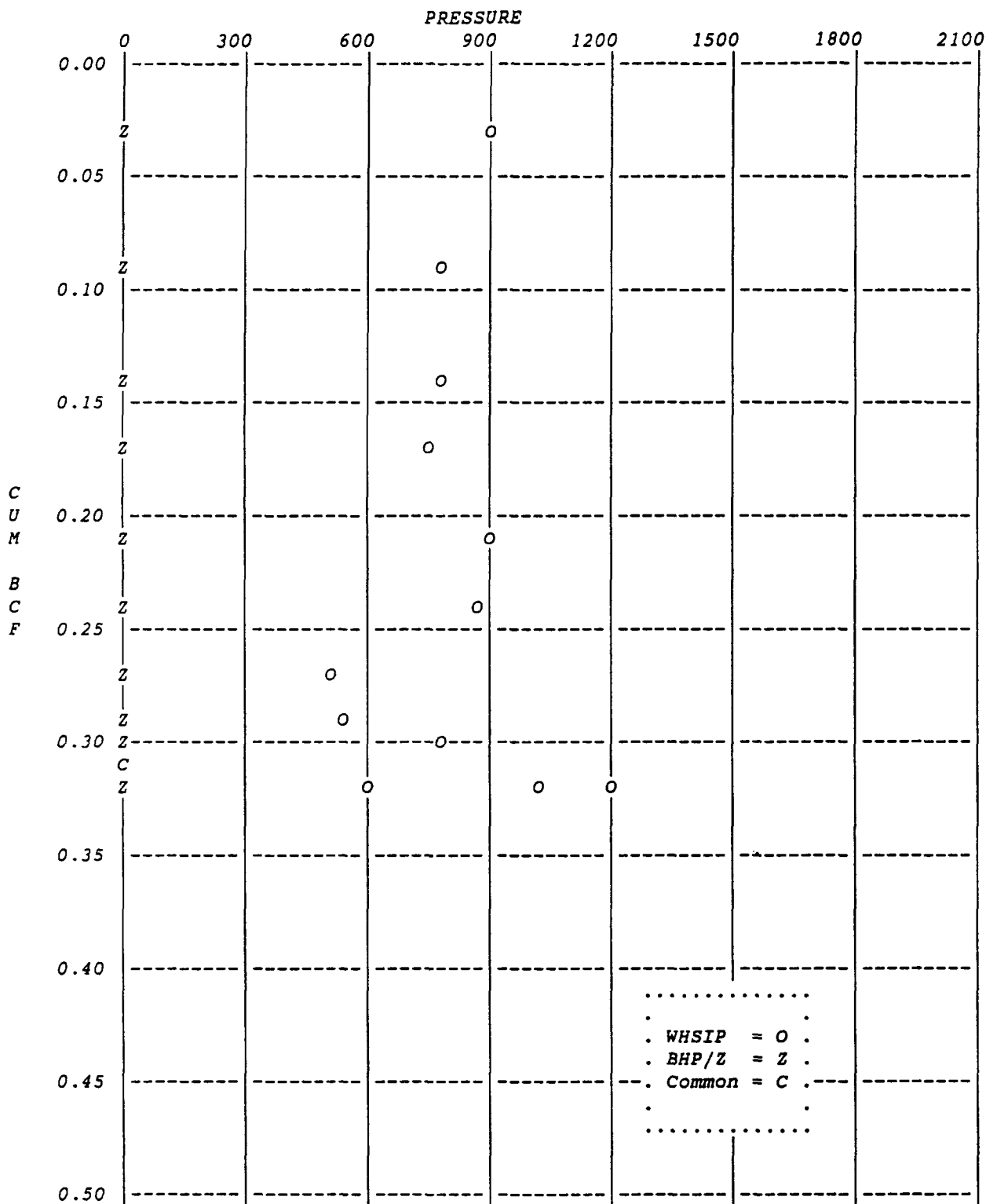
Dwight's Energydata, Inc. DLOOK 4.20 Record # 3 Run date: 12/13/92  
 Production data from file: D:\PROD-CD\TRAINER. Retrieval code: 250,005,11S29E34E00MI  
 Lease: WHITE RANCH Well #: 000001

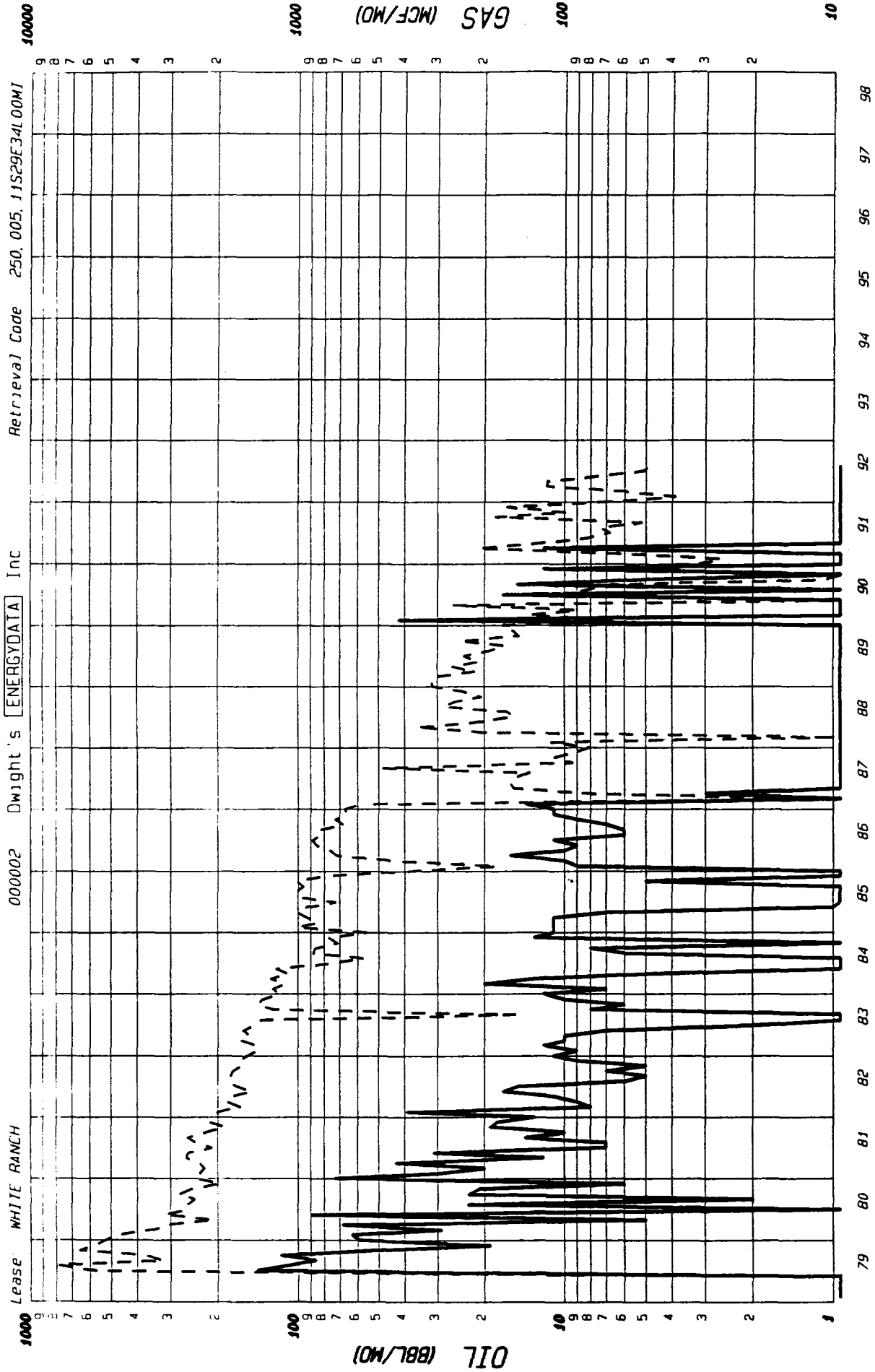
| Month      | Oil<br>bbls | Cum Oil<br>bbls | Gas<br>mcf | Cum Gas<br>mcf | Water<br>bbls | No.of<br>Wells |
|------------|-------------|-----------------|------------|----------------|---------------|----------------|
| Total 1979 | 695         | 695             | 59864      | 59864          | 114           | 1              |
| Total 1980 | 579         | 1274            | 50891      | 110755         | 0             | 1              |
| Total 1981 | 362         | 1636            | 42658      | 153413         | 0             | 1              |
| Total 1982 | 231         | 1867            | 36400      | 189813         | 0             | 1              |
| Total 1983 | 96          | 1963            | 27594      | 217407         | 0             | 1              |
| Total 1984 | 88          | 2051            | 28599      | 246006         | 0             | 1              |
| Total 1985 | 47          | 2098            | 29242      | 275248         | 0             | 1              |
| Total 1986 | 116         | 2214            | 22219      | 297467         | 0             | 1              |
| Total 1987 | 18          | 2232            | 5658       | 303125         | 0             | 1              |
| Total 1988 | 0           | 2232            | 7903       | 311028         | 0             | 1              |
| January    | 0           | 2232            | 991        | 312019         | 0             | 1              |
| February   | 0           | 2232            | 991        | 313010         | 0             | 1              |
| March      | 0           | 2232            | 680        | 313690         | 0             | 1              |
| April      | 0           | 2232            | 831        | 314521         | 0             | 1              |
| May        | 0           | 2232            | 659        | 315180         | 0             | 1              |
| June       | 0           | 2232            | 753        | 315933         | 0             | 1              |
| July       | 0           | 2232            | 608        | 316541         | 0             | 1              |
| August     | 0           | 2232            | 527        | 317068         | 0             | 1              |
| September  | 0           | 2232            | 782        | 317850         | 0             | 1              |
| October    | 0           | 2232            | 470        | 318320         | 0             | 1              |
| November   | 0           | 2232            | 491        | 318811         | 0             | 1              |
| December   | 0           | 2232            | 541        | 319352         | 0             | 1              |
| Total 1989 | 0           | 2232            | 8324       | 319352         | 0             | 1              |
| January    | 40          | 2272            | 212        | 319564         | 0             | 1              |
| February   | 0           | 2272            | 431        | 319995         | 0             | 1              |
| March      | 0           | 2272            | 281        | 320276         | 0             | 1              |
| April      | 0           | 2272            | 838        | 321114         | 0             | 1              |
| May        | 16          | 2288            | 524        | 321638         | 0             | 1              |
| June       | 22          | 2310            | 324        | 321962         | 0             | 1              |
| July       | 0           | 2310            | 258        | 322220         | 0             | 1              |
| August     | 0           | 2310            | 212        | 322432         | 0             | 1              |
| September  | 0           | 2310            | 34         | 322466         | 0             | 1              |
| October    | 0           | 2310            | 0          | 322466         | 0             | 1              |
| November   | 1           | 2311            | 308        | 322774         | 0             | 1              |
| December   | 0           | 2311            | 102        | 322876         | 0             | 1              |
| Total 1990 | 79          | 2311            | 3524       | 322876         | 0             | 1              |
| January    | 0           | 2311            | 81         | 322957         | 0             | 1              |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 3 Run date: 12/13/92  
 Production data from file: D:\PROD-CD\TRAINER. Retrieval code: 250,005,11S29E34E00MI  
 Lease: WHITE RANCH Well #: 000001

| Month      | Oil<br>bbls | Cum Oil<br>bbls | Gas<br>mcf | Cum Gas<br>mcf | Water<br>bbls | No.of<br>Wells |
|------------|-------------|-----------------|------------|----------------|---------------|----------------|
| February   | 0           | 2311            | 199        | 323156         | 0             | 1              |
| March      | 1           | 2312            | 667        | 323823         | 0             | 1              |
| April      | 0           | 2312            | 386        | 324209         | 0             | 1              |
| May        | 0           | 2312            | 259        | 324468         | 0             | 1              |
| June       | 0           | 2312            | 215        | 324683         | 0             | 1              |
| July       | 0           | 2312            | 233        | 324916         | 0             | 1              |
| August     | 0           | 2312            | 162        | 325078         | 0             | 1              |
| September  | 0           | 2312            | 572        | 325650         | 0             | 1              |
| October    | 0           | 2312            | 311        | 325961         | 0             | 1              |
| November   | 0           | 2312            | 517        | 326478         | 0             | 1              |
| December   | 0           | 2312            | 224        | 326702         | 0             | 1              |
| Total 1991 | 1           | 2312            | 3826       | 326702         | 0             | 1              |
| January    | 0           | 2312            | 124        | 326826         | 0             | 1              |
| February   | 0           | 2312            | 190        | 327016         | 0             | 1              |
| March      | 0           | 2312            | 370        | 327386         | 0             | 1              |
| April      | 0           | 2312            | 365        | 327751         | 0             | 1              |
| May        | 0           | 2312            | 234        | 327985         | 0             | 1              |
| June       | 0           | 2312            | 162        | 328147         | 0             | 1              |
| July       | 0           | 2312            | 151        | 328298         | 0             | 1              |
| Total 1992 | 0           | 2312            | 1596       | 328298         | 0             | 1              |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 3 Run date: 12/13/92  
 Gas test data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E34E00MI  
 Lease: WHITE RANCH Well #: 000001  
 Field: WHITE RANCH (MISSISSIPPIAN) MI Reservoir: MISSISSIPPIAN  
 Operator: TRAINER C W Gas cum: 328298





County: CHAVES      State: NM  
 Field: WHITE RANCH (MISSISSIPPIAN)  
 Reservoir: MISSISSIPPIAN  
 Operator: TRAINER C W <sup>miss</sup>  
 Oil Cum: 200478 (1901) Gas Cum: 183302  
 Location: 341 115 29F

Dwight's Energydata, Inc. DLOOK 4.20 Record # 4 Run date: 12/13/92  
 Property data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E34L00MI

| Operator (#737018) | Lease name  | Well # |
|--------------------|-------------|--------|
| TRAINER C W        | WHITE RANCH | 000002 |

| Ident. #      | State  | Dist | County     | Location    | Lse/tax<br>/unit # |
|---------------|--------|------|------------|-------------|--------------------|
| 11S29E34L00MI | NM(30) | 2    | 005 CHAVES | 34L 11S 29E | 0                  |

| API #        | Field (#8081124 )           | Reservoir        |
|--------------|-----------------------------|------------------|
| 30-005-00423 | WHITE RANCH (MISSISSIPPIAN) | MI MISSISSIPPIAN |

| Total<br>Depth | Perforations<br>Upper Lower | Temp<br>Gradient | N-Factor | GOR |
|----------------|-----------------------------|------------------|----------|-----|
| 0              | 0 0                         | 0.000            | 0.000    | 0   |

| Comp<br>Date | Production Dates<br>First Last | Status<br>Date | Status |
|--------------|--------------------------------|----------------|--------|
| 0            | 0 9207                         | 0              | ACT    |

| Cumulative gas<br>MCF | Since<br>FP Date | Gas<br>Gravity | Gas<br>Gatherer |
|-----------------------|------------------|----------------|-----------------|
| 183302                | FP Date          | 0.00           | SUG             |

| Cumulative liquid<br>BBL | Since<br>FP Date | Liquid<br>Gravity | Liquid<br>Gatherer |
|--------------------------|------------------|-------------------|--------------------|
| 200478                   | FP Date          | 0.00              | DIA                |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 4 Run date: 12/13/92  
 Gas test data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E34L00MI  
 Lease: WHITE RANCH Well #: 000002

| Test<br>Date | Cum at<br>Test | WHSIP | BHP | BHPZ | M/C | Type<br>Pot | bd<br>water | bd<br>cond | whflow | poten | init<br>test |
|--------------|----------------|-------|-----|------|-----|-------------|-------------|------------|--------|-------|--------------|
| 760720       | 6758           | 2284  | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 790920       | 26348          | 1075  | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 800819       | 68570          | 701   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 810722       | 95227          | 778   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 820722       | 118659         | 856   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 830727       | 137942         | 791   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 840706       | 150243         | 1018  | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 850831       | 161991         | 463   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 861006       | 171441         | 430   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 870705       | 174505         | 783   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 880722       | 176638         | 13    | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 890719       | 179665         | 593   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 900616       | 181243         | 963   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 910807       | 182241         | 835   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |

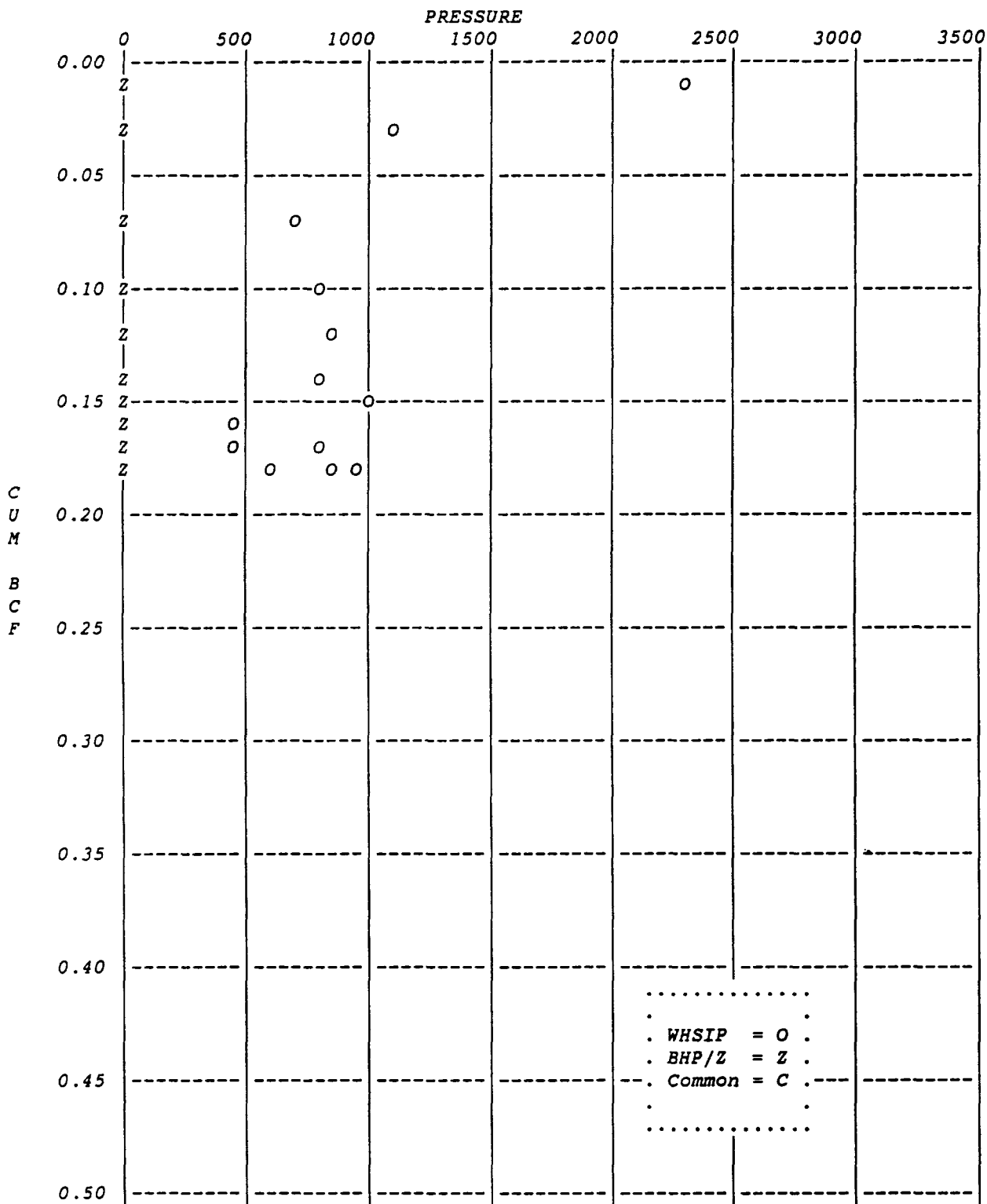
Dwight's Energydata, Inc. DLOOK 4.20 Record # 4 Run date: 12/13/92  
 Production data from file: D:\PROD-CD\TRAINER. Retrieval code: 250,005,11S29E34L00MI  
 Lease: WHITE RANCH Well #: 000002

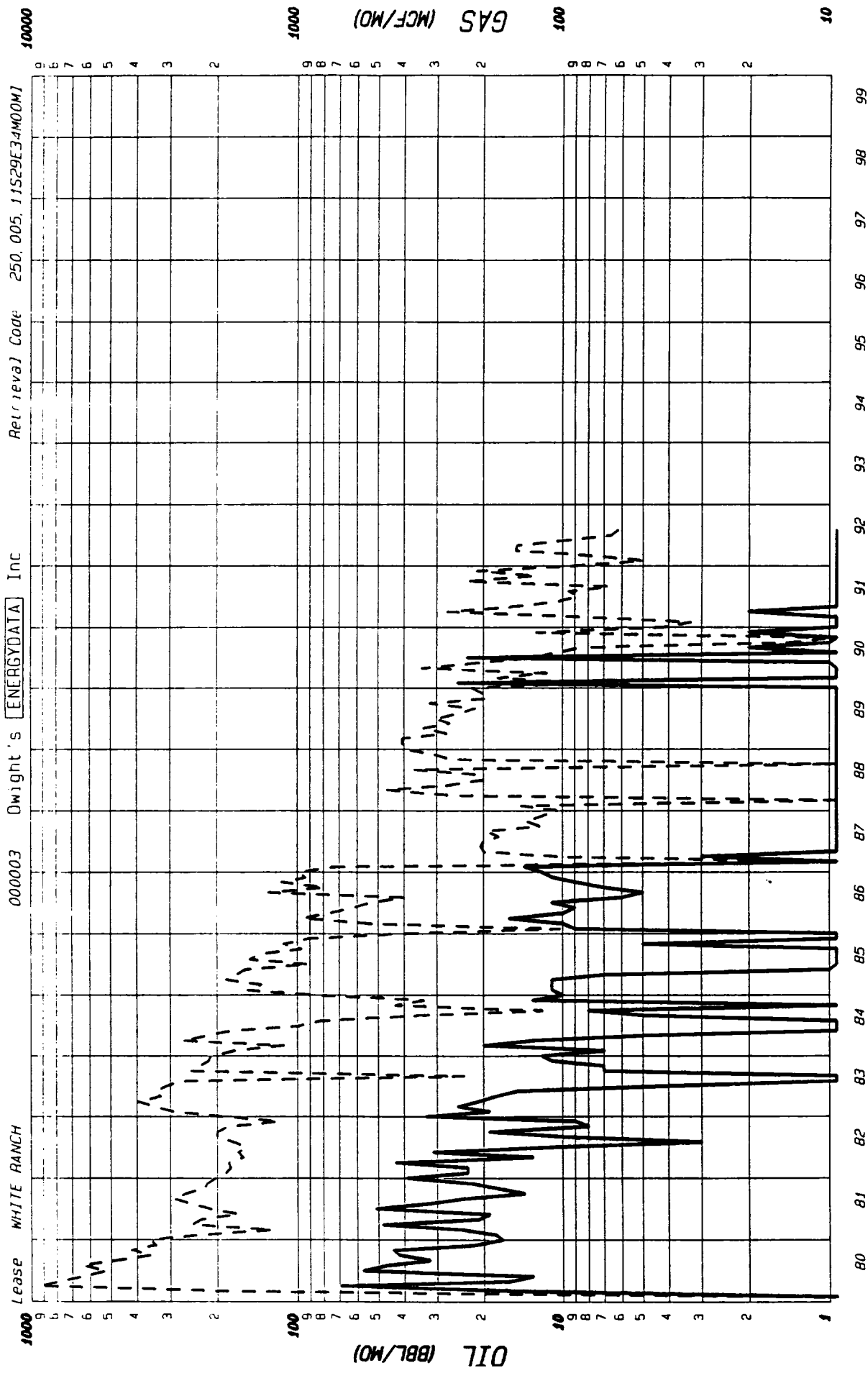
| Month      | Oil<br>bbls | Cum Oil<br>bbls | Gas<br>mcf | Cum Gas<br>mcf | Water<br>bbls | No.of<br>Wells |
|------------|-------------|-----------------|------------|----------------|---------------|----------------|
| Total 1979 | 584         | 199260          | 38415      | 45173          | 183           | 1              |
| Total 1980 | 402         | 199662          | 34032      | 79205          | 15            | 1              |
| Total 1981 | 224         | 199886          | 27592      | 106797         | 98            | 1              |
| Total 1982 | 142         | 200028          | 20762      | 127559         | 0             | 1              |
| Total 1983 | 86          | 200114          | 15890      | 143449         | 0             | 1              |
| Total 1984 | 83          | 200197          | 11038      | 154487         | 0             | 1              |
| Total 1985 | 46          | 200243          | 10654      | 165141         | 0             | 1              |
| Total 1986 | 115         | 200358          | 8211       | 173352         | 0             | 1              |
| Total 1987 | 17          | 200375          | 2124       | 175476         | 0             | 1              |
| Total 1988 | 0           | 200375          | 2509       | 177985         | 0             | 1              |
| January    | 0           | 200375          | 315        | 178300         | 0             | 1              |
| February   | 0           | 200375          | 315        | 178615         | 0             | 1              |
| March      | 0           | 200375          | 216        | 178831         | 0             | 1              |
| April      | 0           | 200375          | 264        | 179095         | 0             | 1              |
| May        | 0           | 200375          | 209        | 179304         | 0             | 1              |
| June       | 0           | 200375          | 239        | 179543         | 0             | 1              |
| July       | 0           | 200375          | 193        | 179736         | 0             | 1              |
| August     | 0           | 200375          | 168        | 179904         | 0             | 1              |
| September  | 0           | 200375          | 248        | 180152         | 0             | 1              |
| October    | 0           | 200375          | 149        | 180301         | 0             | 1              |
| November   | 0           | 200375          | 156        | 180457         | 0             | 1              |
| December   | 0           | 200375          | 172        | 180629         | 0             | 1              |
| Total 1989 | 0           | 200375          | 2644       | 180629         | 0             | 1              |
| January    | 42          | 200417          | 67         | 180696         | 0             | 1              |
| February   | 0           | 200417          | 137        | 180833         | 0             | 1              |
| March      | 0           | 200417          | 89         | 180922         | 0             | 1              |
| April      | 0           | 200417          | 266        | 181188         | 0             | 1              |
| May        | 0           | 200417          | 0          | 181188         | 0             | 1              |
| June       | 17          | 200434          | 103        | 181291         | 0             | 1              |
| July       | 0           | 200434          | 82         | 181373         | 0             | 1              |
| August     | 15          | 200449          | 67         | 181440         | 0             | 1              |
| September  | 5           | 200454          | 11         | 181451         | 0             | 1              |
| October    | 0           | 200454          | 0          | 181451         | 0             | 1              |
| November   | 12          | 200466          | 98         | 181549         | 0             | 1              |
| December   | 0           | 200466          | 32         | 181581         | 0             | 1              |
| Total 1990 | 91          | 200466          | 952        | 181581         | 0             | 1              |
| January    | 0           | 200466          | 26         | 181607         | 0             | 1              |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 4 Run date: 12/13/92  
 Production data from file: D:\PROD-CD\TRAINER. Retrieval code: 250,005,11S29E34L00MI  
 Lease: WHITE RANCH Well #: 000002

| Month      | Oil<br>bbls | Cum Oil<br>bbls | Gas<br>mcf | Cum Gas<br>mcf | Water<br>bbls | No.of<br>Wells |
|------------|-------------|-----------------|------------|----------------|---------------|----------------|
| February   | 0           | 200466          | 63         | 181670         | 0             | 1              |
| March      | 12          | 200478          | 212        | 181882         | 0             | 1              |
| April      | 0           | 200478          | 123        | 182005         | 0             | 1              |
| May        | 0           | 200478          | 82         | 182087         | 0             | 1              |
| June       | 0           | 200478          | 68         | 182155         | 0             | 1              |
| July       | 0           | 200478          | 74         | 182229         | 0             | 1              |
| August     | 0           | 200478          | 52         | 182281         | 0             | 1              |
| September  | 0           | 200478          | 182        | 182463         | 0             | 1              |
| October    | 0           | 200478          | 99         | 182562         | 0             | 1              |
| November   | 0           | 200478          | 164        | 182726         | 0             | 1              |
| December   | 0           | 200478          | 71         | 182797         | 0             | 1              |
| Total 1991 | 12          | 200478          | 1216       | 182797         | 0             | 1              |
| January    | 0           | 200478          | 39         | 182836         | 0             | 1              |
| February   | 0           | 200478          | 60         | 182896         | 0             | 1              |
| March      | 0           | 200478          | 117        | 183013         | 0             | 1              |
| April      | 0           | 200478          | 116        | 183129         | 0             | 1              |
| May        | 0           | 200478          | 74         | 183203         | 0             | 1              |
| June       | 0           | 200478          | 51         | 183254         | 0             | 1              |
| July       | 0           | 200478          | 48         | 183302         | 0             | 1              |
| Total 1992 | 0           | 200478          | 505        | 183302         | 0             | 1              |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 4 Run date: 12/13/92  
 Gas test data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E34L00MI  
 Lease: WHITE RANCH Well #: 000002  
 Field: WHITE RANCH (MISSISSIPPIAN) MI Reservoir: MISSISSIPPIAN  
 Operator: TRAINER C W Gas cum: 183302





Lease WHITE RANCH 000003 Dwight's ENERGYDATA Inc Retrieval Code 250,005, 11529E34M00M1

County: CHAVES State: NM  
 Field: WHITE RANCH (MISSISSIPPIAN)  
 Reservoir: MISSISSIPPIAN  
 Operator: TRAINER C W  
 Oil Cum: 1383 Gas Cum: 185400  
 Location: 34M 115 29E

Dwight's Energydata, Inc. DLOOK 4.20 Record # 5 Run date: 12/13/92  
 Property data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E34M00MI

| Operator (#737018) | Lease name  | Well # |
|--------------------|-------------|--------|
| TRAINER C W        | WHITE RANCH | 000003 |

| Ident. #      | State  | Dist | County     | Location    | Lse/tax<br>/unit # |
|---------------|--------|------|------------|-------------|--------------------|
| 11S29E34M00MI | NM(30) | 2    | 005 CHAVES | 34M 11S 29E | 0                  |

| API #        | Field (#8081124 )           | Reservoir        |
|--------------|-----------------------------|------------------|
| 30-005-00422 | WHITE RANCH (MISSISSIPPIAN) | MI MISSISSIPPIAN |

| Total<br>Depth | Perforations<br>Upper Lower | Temp<br>Gradient | N-Factor | GOR |
|----------------|-----------------------------|------------------|----------|-----|
| 0              | 0 0                         | 0.000            | 0.000    | 0   |

| Comp<br>Date | Production Dates<br>First Last | Status<br>Date | Status |
|--------------|--------------------------------|----------------|--------|
| 0            | 8002 9207                      | 0              | ACT    |

| Cumulative gas<br>MCF | Since<br>FP Date | Gas<br>Gravity | Gas<br>Gatherer |
|-----------------------|------------------|----------------|-----------------|
| 186400                | FP Date          | 0.00           | SAG             |

| Cumulative liquid<br>BBL | Since<br>FP Date | Liquid<br>Gravity | Liquid<br>Gatherer |
|--------------------------|------------------|-------------------|--------------------|
| 1383                     | FP Date          | 0.00              | DIA                |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 5 Run date: 12/13/92  
 Gas test data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E34M00MI  
 Lease: WHITE RANCH Well #: 000003

| Test<br>Date | Cum at<br>Test | WHSIP | BHP | BHPZ | M/C | Type<br>Pot | bd<br>water | bd<br>cond | whflow | poten | init<br>test |
|--------------|----------------|-------|-----|------|-----|-------------|-------------|------------|--------|-------|--------------|
| 800819       | 39889          | 825   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 810722       | 70420          | 511   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 820722       | 94669          | 442   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 830727       | 126674         | 371   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 840706       | 146969         | 232   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 850831       | 161639         | 343   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 861006       | 171294         | 295   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 870705       | 175622         | 163   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 880722       | 177946         | 13    | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 890830       | 181813         | 513   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 900616       | 183750         | 513   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 910807       | 185035         | 365   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |

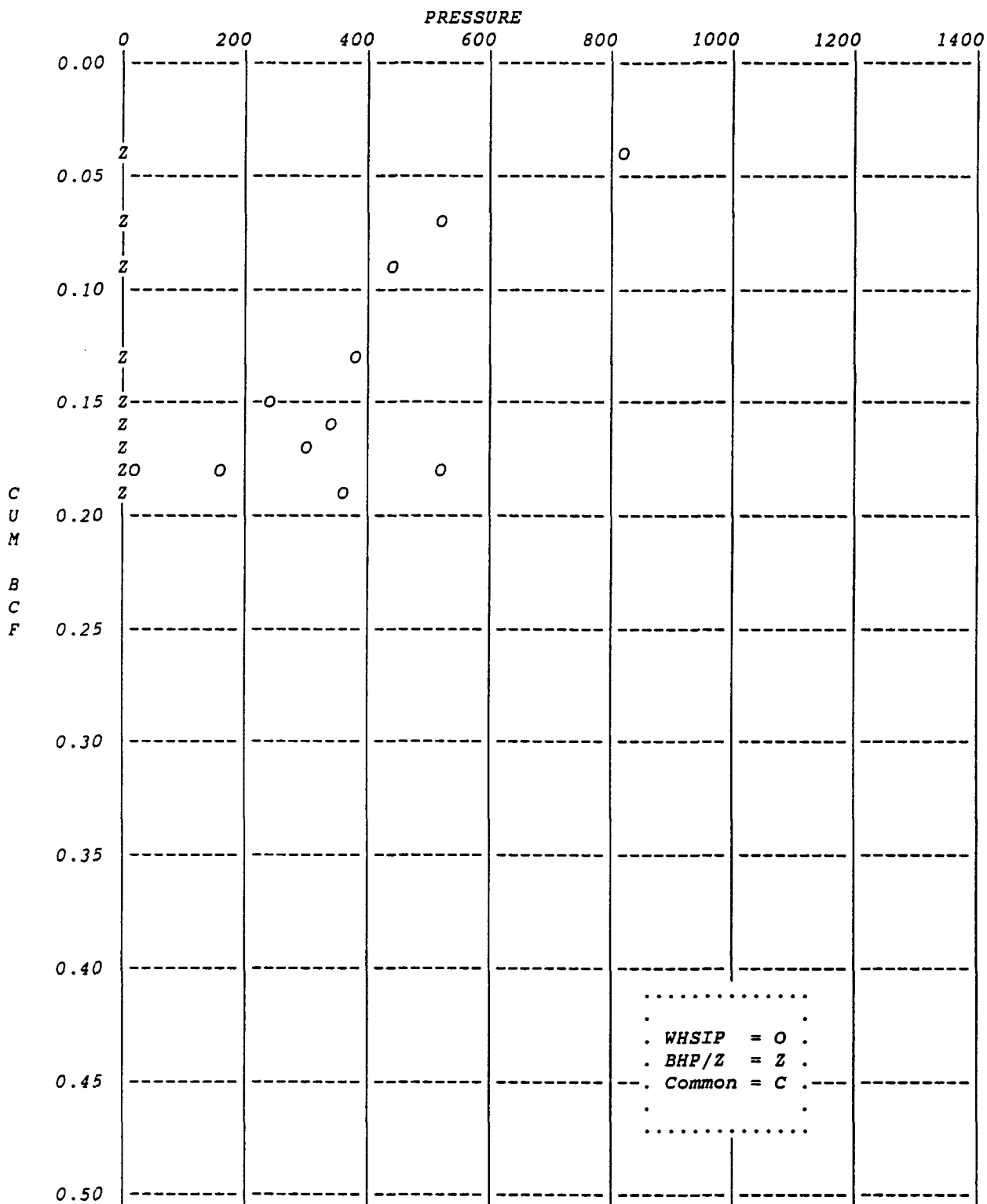
Dwight's Energydata, Inc. DLOOK 4.20 Record # 5 Run date: 12/13/92  
 Production data from file: D:\PROD-CD\TRAINER. Retrieval code: 250,005,11S29E34M00MI  
 Lease: WHITE RANCH Well #: 000003

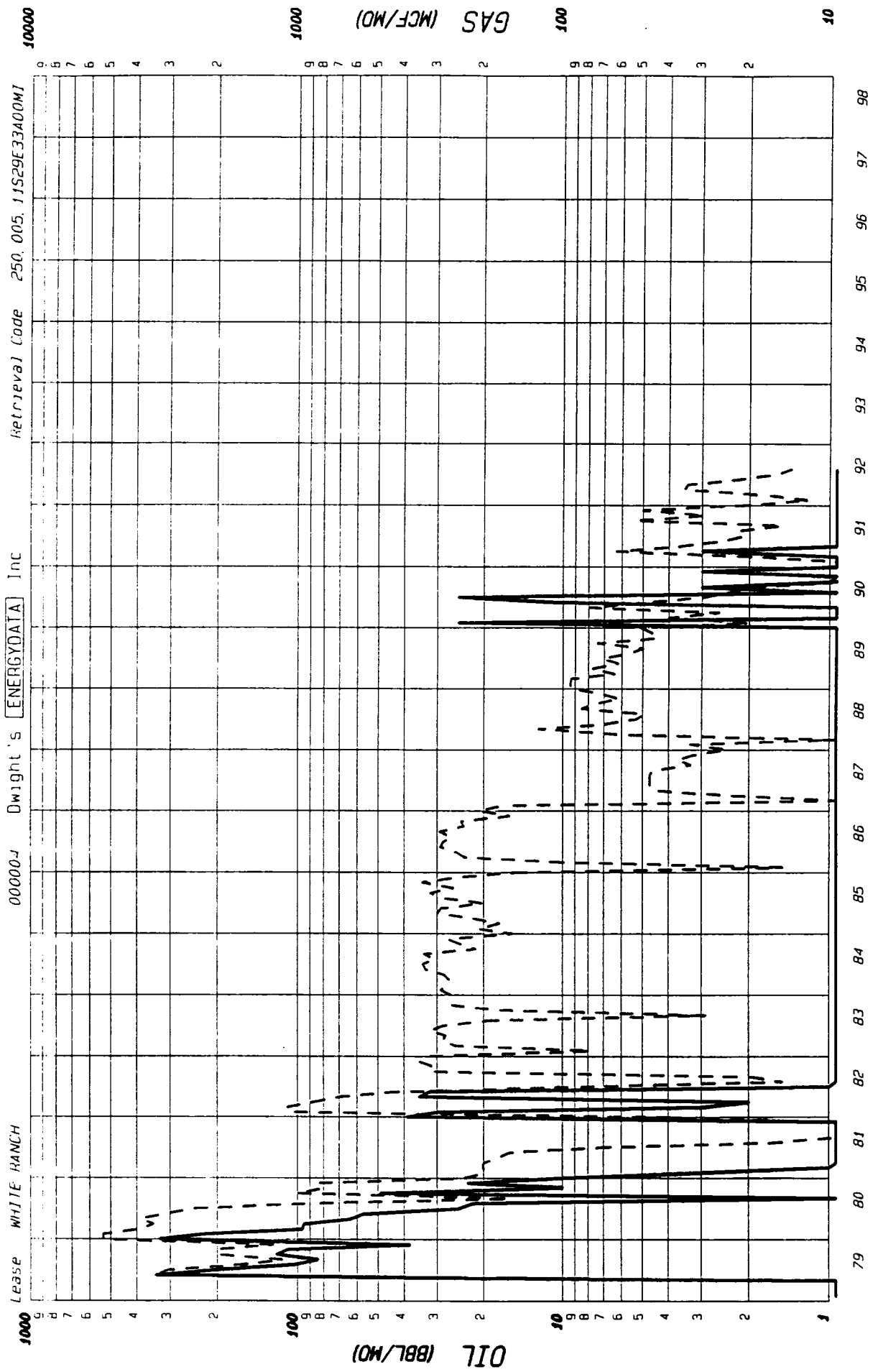
| Month      | Oil<br>bbls | Cum Oil<br>bbls | Gas<br>mcf | Cum Gas<br>mcf | Water<br>bbls | No.of<br>Wells |
|------------|-------------|-----------------|------------|----------------|---------------|----------------|
| Total 1980 | 373         | 373             | 56351      | 56351          | 19            | 1              |
| Total 1981 | 330         | 703             | 26766      | 83117          | 8             | 1              |
| Total 1982 | 226         | 929             | 20922      | 104039         | 0             | 1              |
| Total 1983 | 139         | 1068            | 32273      | 136312         | 0             | 1              |
| Total 1984 | 81          | 1149            | 13432      | 149744         | 0             | 1              |
| Total 1985 | 46          | 1195            | 15295      | 165039         | 0             | 1              |
| Total 1986 | 115         | 1310            | 9103       | 174142         | 0             | 1              |
| Total 1987 | 17          | 1327            | 2308       | 176450         | 0             | 1              |
| Total 1988 | 0           | 1327            | 2897       | 179347         | 0             | 1              |
| January    | 0           | 1327            | 405        | 179752         | 0             | 1              |
| February   | 0           | 1327            | 405        | 180157         | 0             | 1              |
| March      | 0           | 1327            | 277        | 180434         | 0             | 1              |
| April      | 0           | 1327            | 339        | 180773         | 0             | 1              |
| May        | 0           | 1327            | 269        | 181042         | 0             | 1              |
| June       | 0           | 1327            | 307        | 181349         | 0             | 1              |
| July       | 0           | 1327            | 249        | 181598         | 0             | 1              |
| August     | 0           | 1327            | 215        | 181813         | 0             | 1              |
| September  | 0           | 1327            | 319        | 182132         | 0             | 1              |
| October    | 0           | 1327            | 192        | 182324         | 0             | 1              |
| November   | 0           | 1327            | 201        | 182525         | 0             | 1              |
| December   | 0           | 1327            | 221        | 182746         | 0             | 1              |
| Total 1989 | 0           | 1327            | 3399       | 182746         | 0             | 1              |
| January    | 25          | 1352            | 87         | 182833         | 0             | 1              |
| February   | 0           | 1352            | 176        | 183009         | 0             | 1              |
| March      | 0           | 1352            | 115        | 183124         | 0             | 1              |
| April      | 0           | 1352            | 342        | 183466         | 0             | 1              |
| May        | 1           | 1353            | 214        | 183680         | 0             | 1              |
| June       | 23          | 1376            | 132        | 183812         | 0             | 1              |
| July       | 0           | 1376            | 106        | 183918         | 0             | 1              |
| August     | 2           | 1378            | 86         | 184004         | 0             | 1              |
| September  | 1           | 1379            | 14         | 184018         | 0             | 1              |
| October    | 0           | 1379            | 0          | 184018         | 0             | 1              |
| November   | 2           | 1381            | 126        | 184144         | 0             | 1              |
| December   | 0           | 1381            | 42         | 184186         | 0             | 1              |
| Total 1990 | 54          | 1381            | 1440       | 184186         | 0             | 1              |
| January    | 0           | 1381            | 33         | 184219         | 0             | 1              |
| February   | 0           | 1381            | 81         | 184300         | 0             | 1              |
| March      | 2           | 1383            | 273        | 184573         | 0             | 1              |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 5 Run date: 12/13/92  
 Production data from file: D:\PROD-CD\TRAINER. Retrieval code: 250,005,11S29E34M00MI  
 Lease: WHITE RANCH Well #: 000003

| Month      | Oil<br>bbls | Cum Oil<br>bbls | Gas<br>mcf | Cum Gas<br>mcf | Water<br>bbls | No.of<br>Wells |
|------------|-------------|-----------------|------------|----------------|---------------|----------------|
| April      | 0           | 1383            | 158        | 184731         | 0             | 1              |
| May        | 0           | 1383            | 106        | 184837         | 0             | 1              |
| June       | 0           | 1383            | 88         | 184925         | 0             | 1              |
| July       | 0           | 1383            | 95         | 185020         | 0             | 1              |
| August     | 0           | 1383            | 66         | 185086         | 0             | 1              |
| September  | 0           | 1383            | 234        | 185320         | 0             | 1              |
| October    | 0           | 1383            | 127        | 185447         | 0             | 1              |
| November   | 0           | 1383            | 211        | 185658         | 0             | 1              |
| December   | 0           | 1383            | 91         | 185749         | 0             | 1              |
| Total 1991 | 2           | 1383            | 1563       | 185749         | 0             | 1              |
| January    | 0           | 1383            | 50         | 185799         | 0             | 1              |
| February   | 0           | 1383            | 77         | 185876         | 0             | 1              |
| March      | 0           | 1383            | 151        | 186027         | 0             | 1              |
| April      | 0           | 1383            | 149        | 186176         | 0             | 1              |
| May        | 0           | 1383            | 96         | 186272         | 0             | 1              |
| June       | 0           | 1383            | 66         | 186338         | 0             | 1              |
| July       | 0           | 1383            | 62         | 186400         | 0             | 1              |
| Total 1992 | 0           | 1383            | 651        | 186400         | 0             | 1              |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 5 Run date: 12/13/92  
 Gas test data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E34M00MI  
 Lease: WHITE RANCH Well #: 000003  
 Field: WHITE RANCH (MISSISSIPPIAN) MI Reservoir: MISSISSIPPIAN  
 Operator: TRAINER C W Gas cum: 186400





County: CHAVES State: NM

Field: WHITE RANCH (MISSISSIPPIAN)

Reservoir: MISSISSIPPIAN

Operator: TRAINER C W

Oil Cum: 2211 Gas Cum: 67310

Location: 334 11S 29E

Dwight's Energydata, Inc. DLOOK 4.20 Record # 2 Run date: 12/13/92  
 Property data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E33A00MI

| Operator (#737018) | Lease name  | Well # |
|--------------------|-------------|--------|
| TRAINER C W        | WHITE RANCH | 000004 |

| Ident. #      | State  | Dist | County     | Location    | Lse/tax /unit # |
|---------------|--------|------|------------|-------------|-----------------|
| 11S29E33A00MI | NM(30) | 2    | 005 CHAVES | 33A 11S 29E | 0               |

| API #        | Field (#8081124 )           | Reservoir        |
|--------------|-----------------------------|------------------|
| 30-005-60405 | WHITE RANCH (MISSISSIPPIAN) | MI MISSISSIPPIAN |

| Total Depth | Perforations Upper Lower | Temp Gradient | N-Factor | GOR |
|-------------|--------------------------|---------------|----------|-----|
| 8810        | 8502 8535                | 0.000         | 0.701    | 0   |

| Comp Date | Production Dates First Last | Status Date | Status |
|-----------|-----------------------------|-------------|--------|
| 7708      | 7905 9207                   | 0           | ACT    |

| Cumulative gas MCF | Since FP Date | Gas Gravity | Gas Gatherer |
|--------------------|---------------|-------------|--------------|
| 67310              |               | 0.68        | SMI          |

| Cumulative liquid BBL | Since FP Date | Liquid Gravity | Liquid Gatherer |
|-----------------------|---------------|----------------|-----------------|
| 2211                  |               | 0.00           | DIA             |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 2 Run date: 12/13/92  
 Gas test data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E33A00MI  
 Lease: WHITE RANCH Well #: 000004

| Test<br>Date | Cum at<br>Test | WHSIP | BHP | BHPZ | M/C | Type<br>Pot | bd<br>water | bd<br>cond | whflow | poten | init<br>test |
|--------------|----------------|-------|-----|------|-----|-------------|-------------|------------|--------|-------|--------------|
| 770819       | 0              | 2341  | 0   | 0    |     | 1           | 0           | 0          | 0      | 2073  | 1            |
| 790919       | 10554          | 1350  | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 800819       | 43083          | 605   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 810722       | 47038          | 83    | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 820722       | 51365          | 799   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 830727       | 54392          | 28    | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 840706       | 57267          | 101   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 850831       | 60754          | 273   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 861006       | 63784          | 173   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 870705       | 64691          | 163   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 880722       | 65280          | 13    | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 890830       | 66250          | 373   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 900616       | 66696          | 233   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |
| 910807       | 66993          | 293   | 0   | 0    |     | 0           | 0           | 0          | 0      | 0     | 0            |

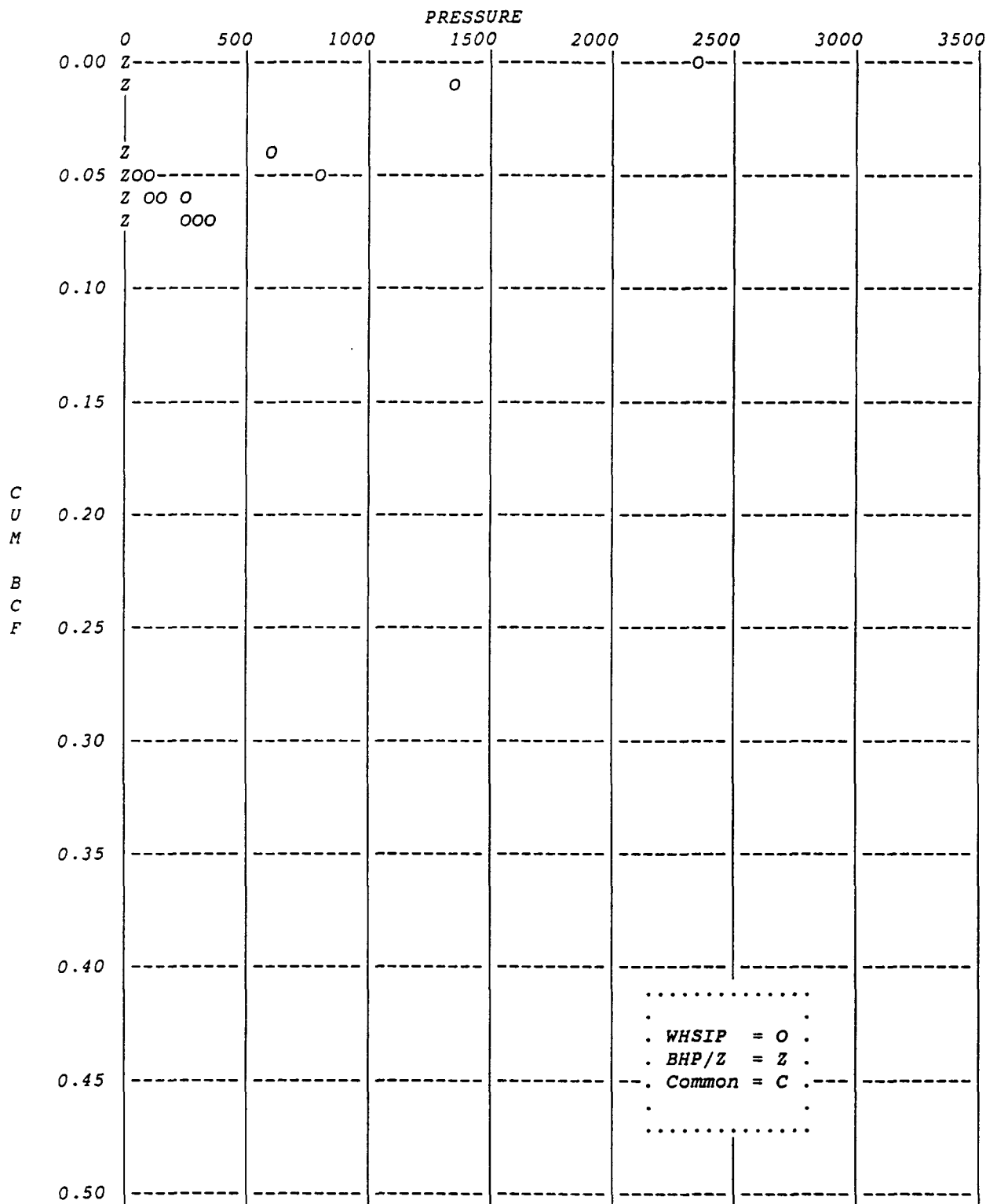
Dwight's Energydata, Inc. DLOOK 4.20 Record # 2 Run date: 12/13/92  
 Production data from file: D:\PROD-CD\TRAINER. Retrieval code: 250,005,11S29E33A00MI  
 Lease: WHITE RANCH Well #: 000004

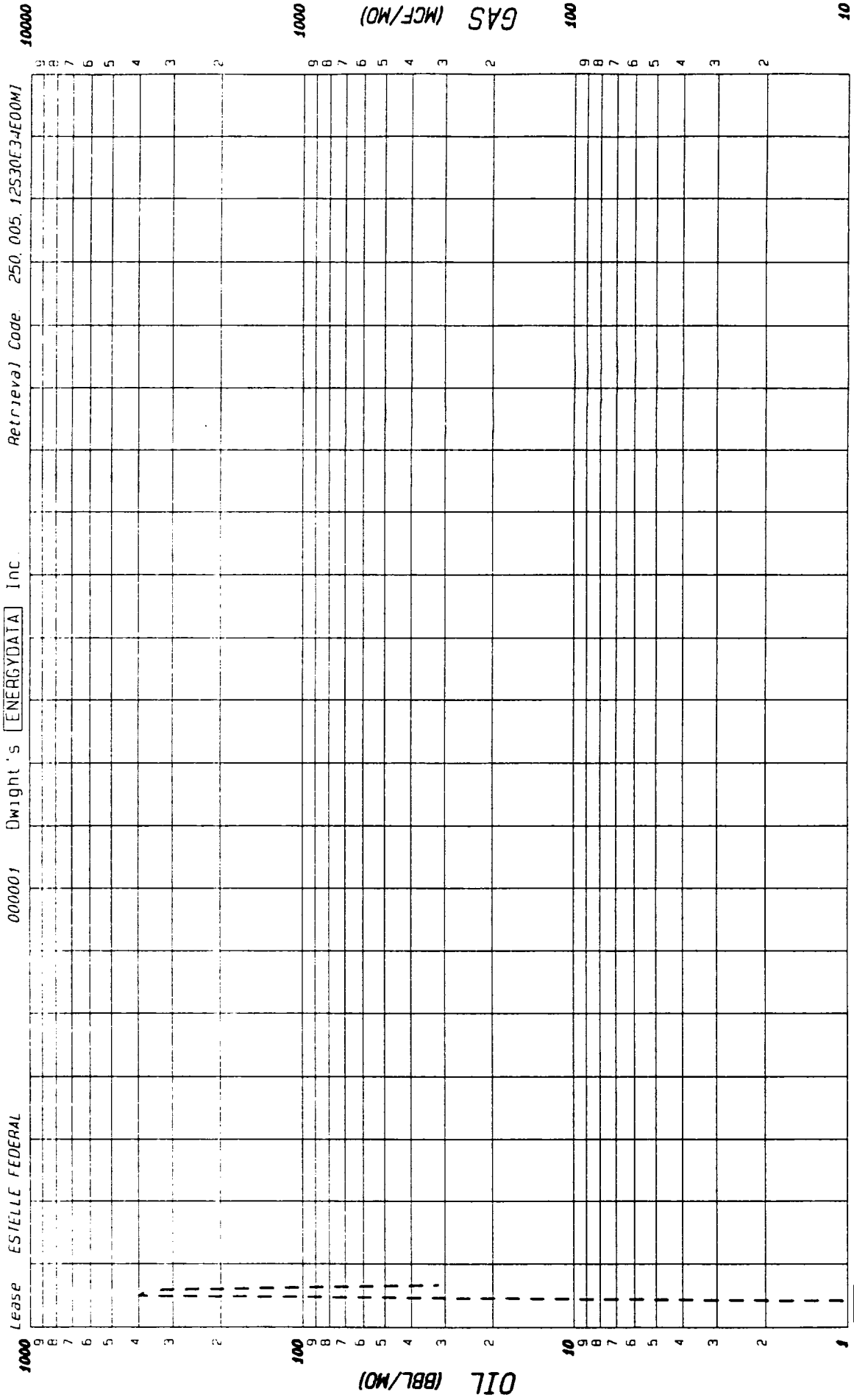
| Month      | Oil<br>bbls | Cum Oil<br>bbls | Gas<br>mcf | Cum Gas<br>mcf | Water<br>bbls | No.of<br>Wells |
|------------|-------------|-----------------|------------|----------------|---------------|----------------|
| Total 1979 | 1320        | 1320            | 19913      | 19913          | 1475          | 1              |
| Total 1980 | 674         | 1994            | 26105      | 46018          | 550           | 1              |
| Total 1981 | 43          | 2037            | 1068       | 47086          | 0             | 1              |
| Total 1982 | 103         | 2140            | 5623       | 52709          | 0             | 1              |
| Total 1983 | 0           | 2140            | 2707       | 55416          | 0             | 1              |
| Total 1984 | 0           | 2140            | 3323       | 58739          | 0             | 1              |
| Total 1985 | 0           | 2140            | 3011       | 61750          | 0             | 1              |
| Total 1986 | 0           | 2140            | 2598       | 64348          | 0             | 1              |
| Total 1987 | 0           | 2140            | 554        | 64902          | 0             | 1              |
| Total 1988 | 0           | 2140            | 779        | 65681          | 0             | 1              |
| January    | 0           | 2140            | 94         | 65775          | 0             | 1              |
| February   | 0           | 2140            | 93         | 65868          | 0             | 1              |
| March      | 0           | 2140            | 64         | 65932          | 0             | 1              |
| April      | 0           | 2140            | 78         | 66010          | 0             | 1              |
| May        | 0           | 2140            | 62         | 66072          | 0             | 1              |
| June       | 0           | 2140            | 71         | 66143          | 0             | 1              |
| July       | 0           | 2140            | 57         | 66200          | 0             | 1              |
| August     | 0           | 2140            | 50         | 66250          | 0             | 1              |
| September  | 0           | 2140            | 74         | 66324          | 0             | 1              |
| October    | 0           | 2140            | 44         | 66368          | 0             | 1              |
| November   | 0           | 2140            | 46         | 66414          | 0             | 1              |
| December   | 0           | 2140            | 51         | 66465          | 0             | 1              |
| Total 1989 | 0           | 2140            | 784        | 66465          | 0             | 1              |
| January    | 25          | 2165            | 20         | 66485          | 0             | 1              |
| February   | 0           | 2165            | 40         | 66525          | 0             | 1              |
| March      | 0           | 2165            | 26         | 66551          | 0             | 1              |
| April      | 0           | 2165            | 79         | 66630          | 0             | 1              |
| May        | 11          | 2176            | 50         | 66680          | 0             | 1              |
| June       | 25          | 2201            | 30         | 66710          | 0             | 1              |
| July       | 0           | 2201            | 24         | 66734          | 0             | 1              |
| August     | 3           | 2204            | 20         | 66754          | 0             | 1              |
| September  | 1           | 2205            | 3          | 66757          | 0             | 1              |
| October    | 0           | 2205            | 0          | 66757          | 0             | 1              |
| November   | 3           | 2208            | 29         | 66786          | 0             | 1              |
| December   | 0           | 2208            | 9          | 66795          | 0             | 1              |
| Total 1990 | 68          | 2208            | 330        | 66795          | 0             | 1              |
| January    | 0           | 2208            | 8          | 66803          | 0             | 1              |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 2 Run date: 12/13/92  
 Production data from file: D:\PROD-CD\TRAINER. Retrieval code: 250,005,11S29E33A00MI  
 Lease: WHITE RANCH Well #: 000004

| Month      | Oil<br>bbls | Cum Oil<br>bbls | Gas<br>mcf | Cum Gas<br>mcf | Water<br>bbls | No.of<br>Wells |
|------------|-------------|-----------------|------------|----------------|---------------|----------------|
| February   | 0           | 2208            | 20         | 66823          | 0             | 1              |
| March      | 3           | 2211            | 63         | 66886          | 0             | 1              |
| April      | 0           | 2211            | 36         | 66922          | 0             | 1              |
| May        | 0           | 2211            | 25         | 66947          | 0             | 1              |
| June       | 0           | 2211            | 21         | 66968          | 0             | 1              |
| July       | 0           | 2211            | 22         | 66990          | 0             | 1              |
| August     | 0           | 2211            | 15         | 67005          | 0             | 1              |
| September  | 0           | 2211            | 54         | 67059          | 0             | 1              |
| October    | 0           | 2211            | 29         | 67088          | 0             | 1              |
| November   | 0           | 2211            | 50         | 67138          | 0             | 1              |
| December   | 0           | 2211            | 21         | 67159          | 0             | 1              |
| Total 1991 | 3           | 2211            | 364        | 67159          | 0             | 1              |
| January    | 0           | 2211            | 12         | 67171          | 0             | 1              |
| February   | 0           | 2211            | 18         | 67189          | 0             | 1              |
| March      | 0           | 2211            | 35         | 67224          | 0             | 1              |
| April      | 0           | 2211            | 34         | 67258          | 0             | 1              |
| May        | 0           | 2211            | 22         | 67280          | 0             | 1              |
| June       | 0           | 2211            | 16         | 67296          | 0             | 1              |
| July       | 0           | 2211            | 14         | 67310          | 0             | 1              |
| Total 1992 | 0           | 2211            | 151        | 67310          | 0             | 1              |

Dwight's Energydata, Inc. DLOOK 4.20 Record # 2 Run date: 12/13/92  
 Gas test data from file: D:\PROD-CD\TRAINER.D Retrieval code: 250,005,11S29E33A00MI  
 Lease: WHITE RANCH Well #: 000004  
 Field: WHITE RANCH (MISSISSIPPIAN) MI Reservoir: MISSISSIPPIAN  
 Operator: TRAINER C W Gas cum: 67310



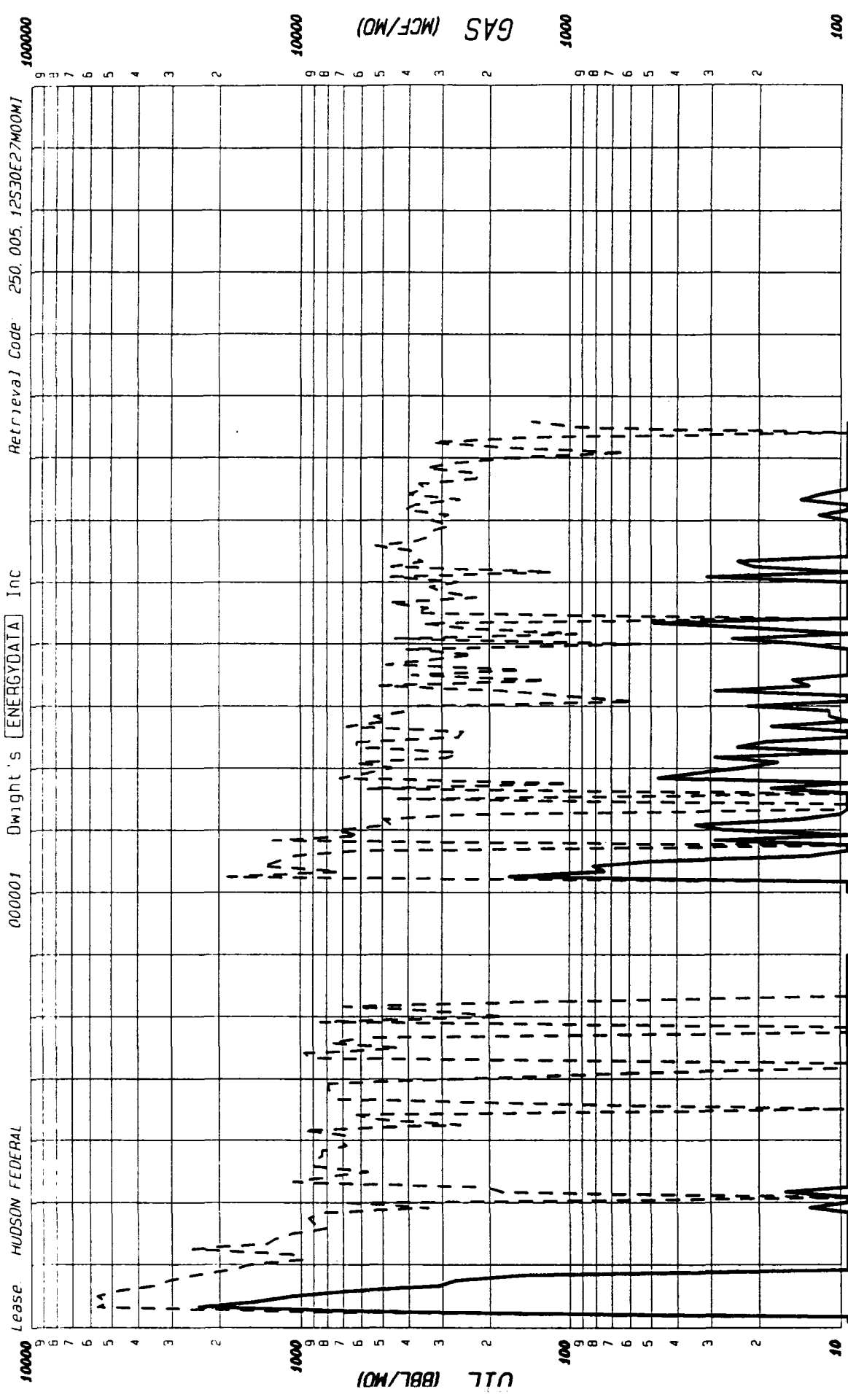


County: **CHAVES**      State: **NM**  
 Field: **MESCALERO SANDS (MISS)**      State: **MJ**  
 Reservoir: **MISS**  
 Operator: **PETROLEUM DEV INC**  
 Oil Cum: **0**      Gas Cum: **8004**  
 Date: **12-13-92**

Lease: HUDSON FEDERAL

000001 Dwight's ENERGYDATA Inc

Retrieval Code: 250.005.12530E27M00MI



County: CHAVES State: NM  
Field: MESCALERO SANDS (MISS) MI  
Reservoir: MISS  
Operator: PETROLEUM DEV INC  
Oil Cum: 8027 Gas Cum: 1020220  
Incrations: 27M 12S 30E

F P. Date 03-78

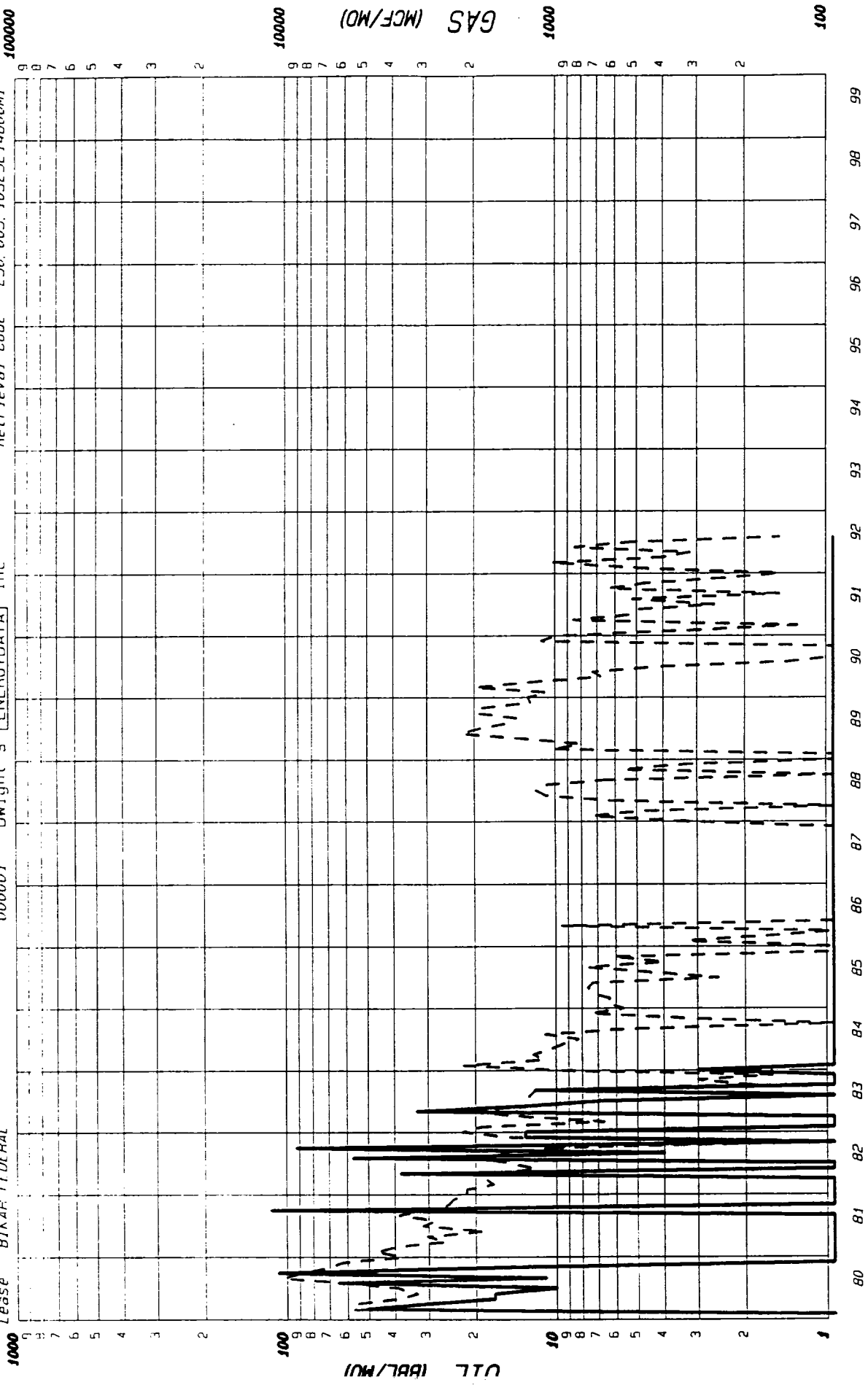
Date: 12-13-92

LEASE BIKAR FEDERAL

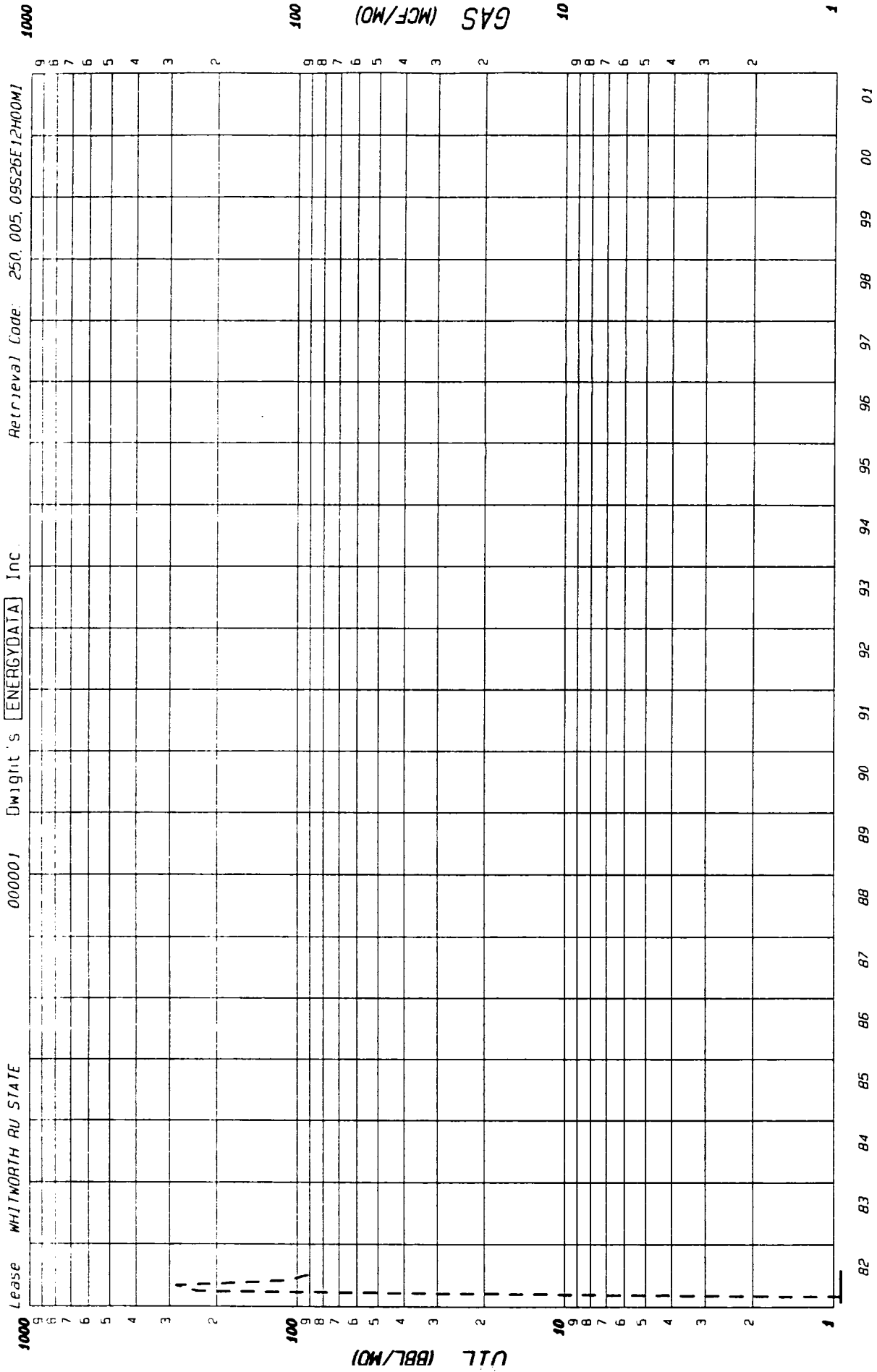
000001

Dwight's ENERGY DATA Inc

Retrieval Code 250.005.10529E14600M1



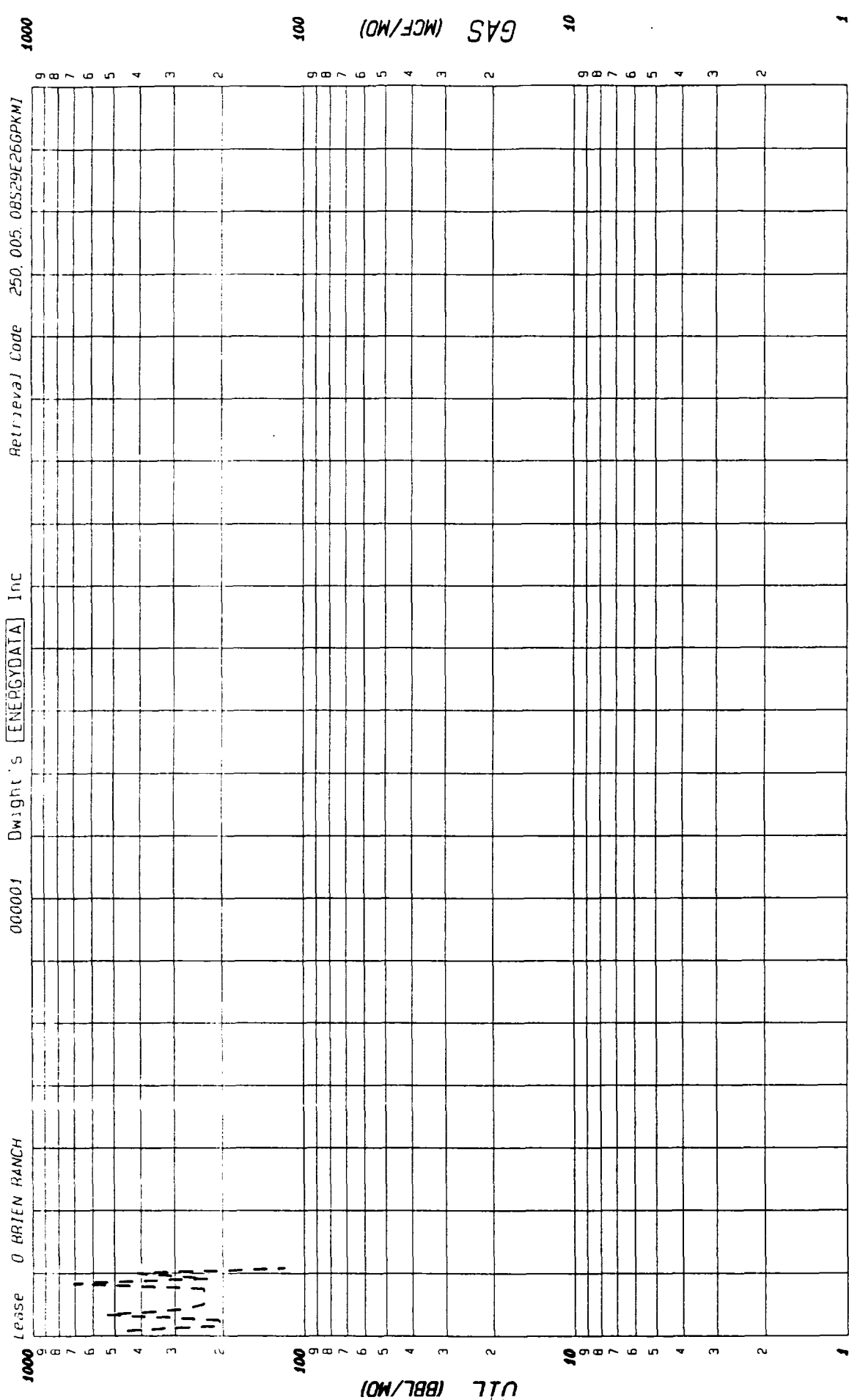
County: CHAVES State: NM  
Field: SAND RANCH (MISSISSIPPIAN) MI  
Reservoir: MISSISSIPPIAN  
Operator: M G F OIL CORP  
Oil Cum: 726 Gas Cum: 191138  
Location: 146 105 29E



County: CHAVES  
 Field: CHAVES (MISSISSIPPIAN)  
 Reservoir: MISSISSIPPIAN  
 Operator: YATES PETROLEUM CORP  
 Oil Cum 0      Gas Cum 808  
 Location 12H 9S 26F

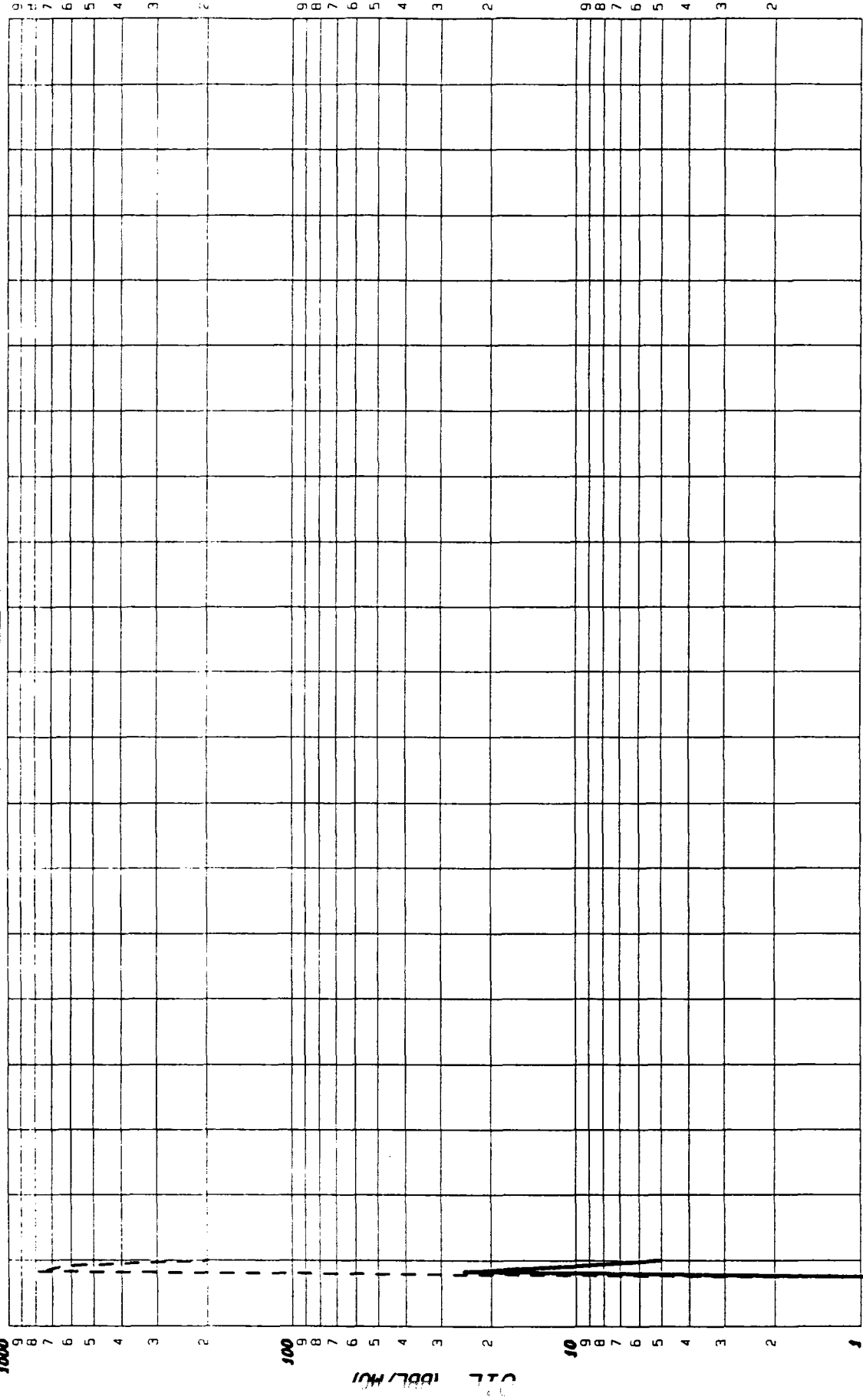
F P Date 03-82

Date 12-13-92



County: CHAVES State: NM  
 Field: CHAVES (MISSISSIPPIAN) MI  
 Reservoir: MISSISSIPPIAN  
 Operator: AMOCO PRODUCTION CO  
 Oil Cum: 0 Gas Cum: 4094  
 Location: 25G RS 20F

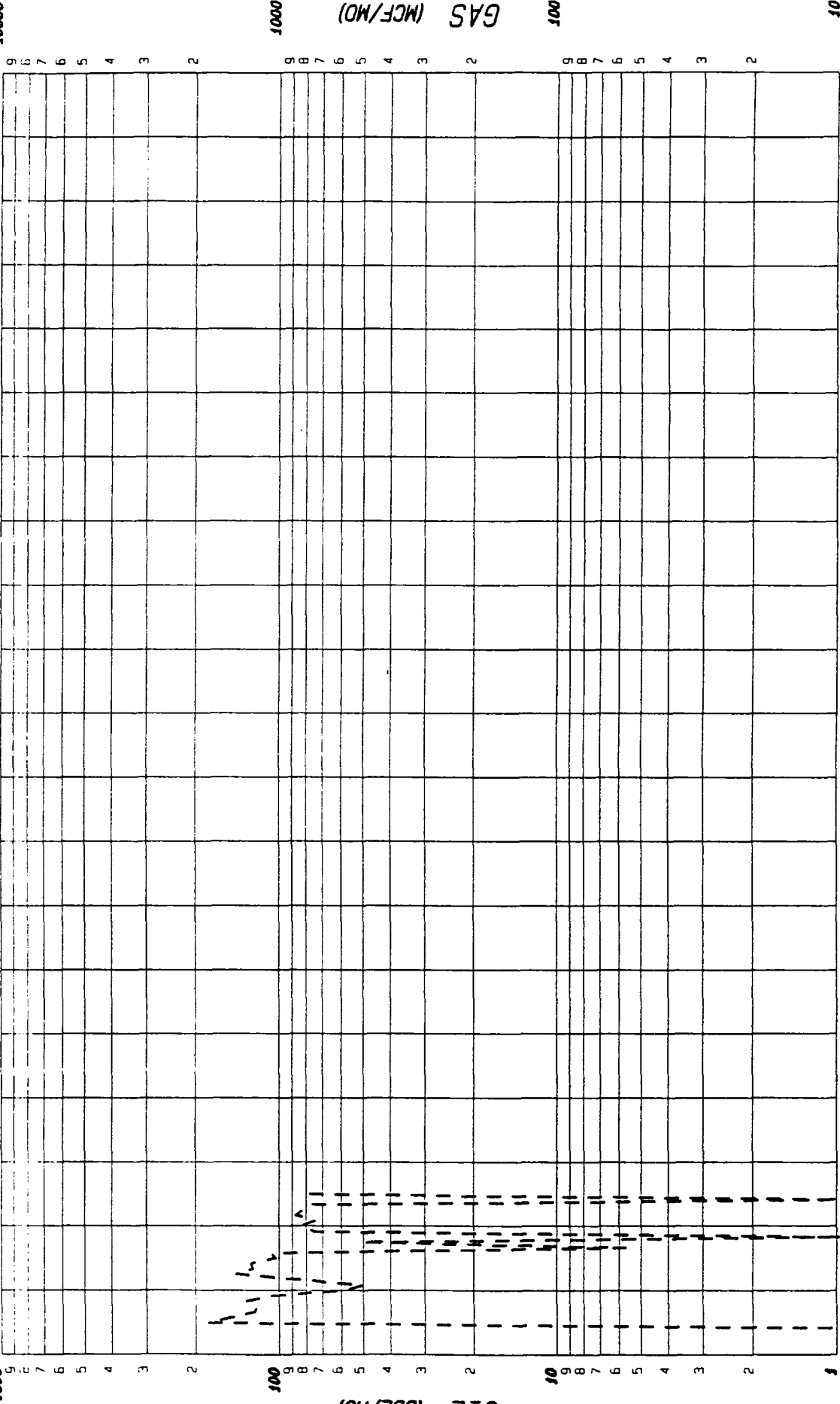
Lease GENERAL AMERICAN FEDERAL 000001 Dwight's ENERGY DATA inc Retrieval Code 150, 005, 07S31E07EPKMI 1000



County: CHAVES State: NM  
Field: LONE (MISSISSIPPIAN)  
Reservoir: MISSISSIPPIAN  
Operator: B W P INC  
Oil Cum: 124177 Gas Cum: 57035

Date 12 13 92

Lease PLAINS 16 STATE 000001 Owright's [ENERGYDATA] Inc. Retrieval Code 250, 005, 11S28E16800MI 10000



County: CHAVES State: NM  
Field: CHAVES (MISSISSIPPIAN) MI  
Reservoir: MISSISSIPPIAN  
Operator: POOL FRED DRUG CO INC  
Oil Cum 0 Gas Cum 22280  
Location: 168 11S 28E

## MAXIMUM UNSTIMULATED PRODUCTION RATE

| AVERAGE DEPTH TO TOP OF FORMATION<br>(IN FEET): |                     | THE MAXIMUM ALLOWABLE<br>PRODUCTION RATE (IN MCF/DAY)<br>MAY NOT EXCEED: |
|-------------------------------------------------|---------------------|--------------------------------------------------------------------------|
| EXCEEDS                                         | BUT DOES NOT EXCEED |                                                                          |
| 6500                                            | 7000                | 251                                                                      |
| 7000                                            | 7500                | 290                                                                      |
| 7500                                            | 8000                | 336                                                                      |
| 8000                                            | 8500                | 388                                                                      |
| 8500                                            | 9000                | 449                                                                      |

NO WELL DRILLED INTO THE RECOMMENDED TIGHT FORMATION IS EXPECTED TO PRODUCE, WITHOUT STIMULATION, MORE THAN FIVE BARRELS OF CRUDE OIL PER DAY.

#18  
Case NO 10617  
Dec 17, 1992

C.W. Trainer

West White Ranch #1

12/11/92: Keltic Services slickline on Location at 1:00 pm to conduct stabilized flow rate and build up. Initial Tubing Pressure 42 psi. Well blew down in 4 minutes 15 seconds. Opened backside, it blew down in 15 seconds. R/H for static bottom hole pressure survey. Survey showed bottom hole pressure at 205.25 psi Estimated top of fluid at 7,048' from surface, pressure gradient indicates fluid in well is condensate. Well built up approximately 10 psi in 30 minutes while running survey.

Est Daily Cost \$500

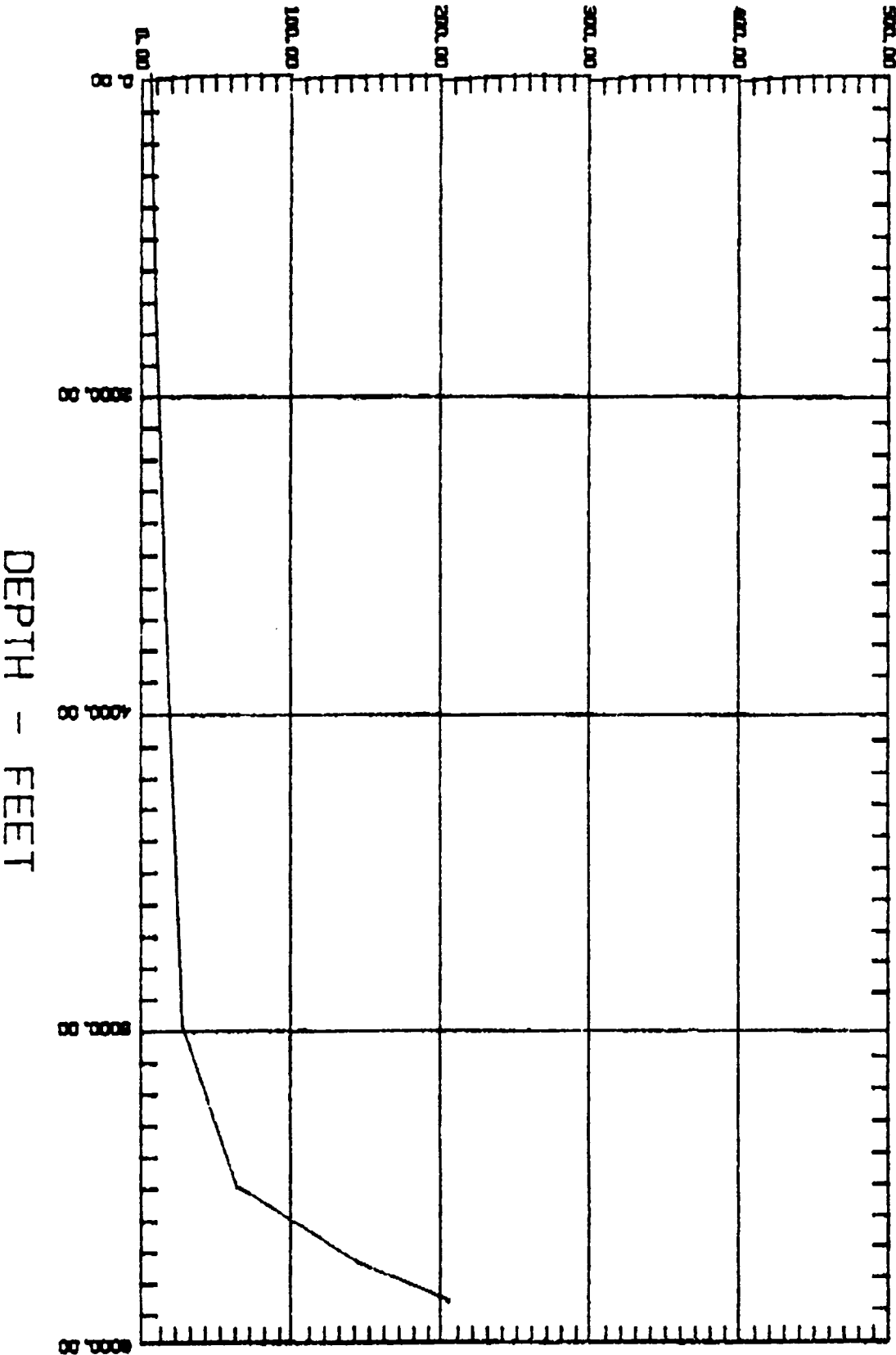
Case No 20617  
Dec 17, 1992  
#19

# PRESSURE - PSIG

Plot starting date: 12/11/92  
Time: 15:15: 0  
Gauge S/N 17341

Company: MELTIC SERVICES  
Client: C. W. TRAINER  
Well name: WEST WHITE RANCH  
Well #: #1  
Test #: 1

Location: N/A  
Operator: LARRY MOSSBARGER  
Comments: SURFACE PRESS - TLM



## ECONOMIC ANALYSIS

BY performing a volumetric analysis of the Mississippian formation in the White Ranch # 4, calculations indicate this well is not effectively draining 40 acres. Calculation indicate 779 MMCFG was originally in place, with only 10 % of the gas expected to be recovered. The average recovery for the four wells in the White Ranch Field is only 200 MMCFG, or approximately 25% of the gas in place.

To increase the ultimate recoveries, the Mississippian needs to be stimulated with larger volumes of fluid and more efficient fluids like Gelled Acid. By increasing the fluid efficiency and extending the drainage radius, ultimate recoveries should increase by 50% or better, to over 300 MMCFG.

The cost to reenter, stimulate and equip a Mississippian well is estimated at \$187,000.

With gas prices at \$1.50 per MMBTU, the 1132 BTU per MCF gas would sell for \$1.70. Running economics at \$1.70 per Mcf and \$2000 per month operating cost and a projected ultimate recovery of 322 MMCFG, yields a 18.99 % return on the \$187,000 investment, with a payout in 2.81 years. These economics are marginal and will not justify the risk to develop this resource.

Economics are enhanced by the addition of the tax credit, as can be seen in the after tax case. Rate of return on the investment of \$187,000 is 58.28 % and a 1.66 year payout. These economics are much more favorable and will support the risk involved with developing this resource.

Economic runs and the volumetric analysis work sheet are attached.

C. W. TRAINER  
BEFORE EXAMINER STOGNER  
NMOCD CASE NO. 10617  
DATE: 12/17/92  
EXHIBIT NO. 20

```

***** WELL NO.:WHITE RANCH #4
* VOLUMETIC ANALYSIS * LOCATION:SEC 34-T11S-R29E
* OIL & GAS RESERVOIRS * OPERATOR:C.W. TRAINER
***** FIELD :WHITE RANCH MISS.
OIL OR GAS RESERVOIR ? 2
OIL=1,GAS=2

```

-DATA-

\*\*\*\*\*

| INTERVAL<br>NO. | HN<br>FT. | POROSITY<br>% | SW<br>% | RECOVERY<br>FACTOR % | RESERVES<br>MCF | RESERVES<br>BO |
|-----------------|-----------|---------------|---------|----------------------|-----------------|----------------|
| *****           | *****     | *****         | *****   | *****                | *****           | *****          |
| 1               | 44.00     | 7.15          | 40.00   | 50.00                | 389637          | 0              |
| 2               |           |               |         |                      | 0               | 0              |
| 3               |           |               |         |                      | 0               | 0              |
| 4               |           |               |         |                      | 0               | 0              |
| 5               |           |               |         |                      | 0               | 0              |
| 6               |           |               |         |                      | 0               | 0              |
| 7               |           |               |         |                      | 0               | 0              |
| 8               |           |               |         |                      | 0               | 0              |
| 9               |           |               |         |                      | 0               | 0              |
| 10              |           |               |         |                      | 0               | 0              |
| TOTAL           | 44.00     | *             | *       | *                    | 389637          | 0              |
| AVERAGE         | *         | 7.15          | 40.00   | 50.00                | *               | *              |

```

GAS GRAVITY : 0.68
GAS FORMATION VOLUME FACTOR INITIAL Bg : 0.0037
FORMATION PRESSURE INITIAL PSI : 3720
GAS FORMATION VOLUME FACTOR FINAL Bg : 0.03
FORMATION PRESSURE FINAL PSI : 500
DRAINAGE AREA ACRES : 40
BOTTOM HOLE TEMPERATURE F : 135

```

FILE NAME: TRAINER ( 1)

DATA REPORT

DATE: 12/16/92

TIME: 07:31.56

CASE NAME: WHITERANCH  
 CMD NAME: ogre ( 130)

101 WHITE RANCH #1  
 102 NE/NE SEC 1-T12S-R28E  
 103 MISSISSIPPIAN RECOMPLETION  
 104 CHAVES COUNTY NEW MEXICO

117 CASE \$CASE  
 \* 107 PREPARED FOR  
 \* 108 C.W. TRAINER  
 \* 120 12 92 12 12 1 92 10 1

|     | W.I.<br>FRACTION | OP. COST<br>(\$/W/MO) | OP. COST<br>(\$/MO.) | ADV. TAX<br>(PCT) | MAJOR<br>PH. NAME | PROD DATE<br>(MO/DY/YR) |
|-----|------------------|-----------------------|----------------------|-------------------|-------------------|-------------------------|
| 210 | 1.00000000       | 2000.00               | .00                  | 1.400             | GAS               | 12/ 1/92                |

|     | PHASE<br>NAME | CUM PROD<br>(MUNITS) | REV. INT<br>FRACTION | PRICE<br>(\$/UNIT) | SEV. TAX<br>(PCT) | NO. OF<br>WELLS | RATIO TO<br>MAJOR PH |
|-----|---------------|----------------------|----------------------|--------------------|-------------------|-----------------|----------------------|
| 221 | OIL           | .000                 | .80449220            | 20.000             | 8.040             | .0              |                      |
| 222 | GAS           | .000                 | .80449220            | 1.700              | 8.040             | 1.0             |                      |

|      | PH. NAME | CURVE TP | DECLINE%    | Q1 RATE | QT RATE | CUM. LIMIT | (M OR Y) | CALC VALUE   |
|------|----------|----------|-------------|---------|---------|------------|----------|--------------|
| 410  | OIL      | EXP      | 50.000      | 3.000   | .200    | X X        | D        |              |
| CALC | OIL      | EXP      | END= 50.000 | 3.000   | .200    | 3.907 YRS  | D        | 1.474 MBBL   |
| 411  | GAS      | EXP      | 20.000      | 250.000 | EL      | X X        | D        |              |
| CALC | GAS      | EXP      | END= 20.000 | 250.000 | 53.024  | 6.949 YRS  | D        | 322.197 MMCF |

600 SERIES LINES:

610 DATA SEC29CR : 40\*3

|     | INV NAME | INV. POINT | (G OR N) | TANG-M\$ | INTANG-M\$ | LSEHLD-M\$ | RISK FRAC | OVHD FLAG |
|-----|----------|------------|----------|----------|------------|------------|-----------|-----------|
| 802 | INVEST   | .000 YRS   | G        | 73.000   | 114.000    | .000       |           |           |

WHITE RANCH #1  
NE/NE SEC 1-T12S-R28E  
MISSISSIPPIAN RECOMPLETION  
CHAVES COUNTY NEW MEXICO

DATE: 12/16/92  
TIME: 07:31.56  
FILE: TRAINER  
GET#: 1

RESERVES AND ECONOMICS

PREPARED FOR  
C.W. TRAINER

AS OF DECEMBER 1, 1992

| -END-<br>MO-YR | ---GROSS PRODUCTION--- |           | -----NET PRODUCTION----- |           | ---PRICES--- |             | NO. OF<br>WELLS | -----OPERATIONS, M\$----- |                |                  |                  |
|----------------|------------------------|-----------|--------------------------|-----------|--------------|-------------|-----------------|---------------------------|----------------|------------------|------------------|
|                | OIL, MMBL              | GAS, MMCF | OIL, MMBL                | GAS, MMCF | OIL<br>\$/B  | GAS<br>\$/M |                 | OIL<br>REVENUE            | GAS<br>REVENUE | OTHER<br>REVENUE | TOTAL<br>REVENUE |
| 12-92          | .089                   | 7.534     | .072                     | 6.061     | 20.00        | 1.70        | 1.0             | 1.440                     | 10.304         | .000             | 11.744           |
| 12-93          | .745                   | 80.279    | .599                     | 64.584    | 20.00        | 1.70        | 1.0             | 11.980                    | 109.793        | .000             | 121.773          |
| 12-94          | .373                   | 64.223    | .300                     | 51.667    | 20.00        | 1.70        | 1.0             | 6.000                     | 87.834         | .000             | 93.834           |
| 12-95          | .186                   | 51.379    | .150                     | 41.334    | 20.00        | 1.70        | 1.0             | 3.000                     | 70.268         | .000             | 73.268           |
| 12-96          | .081                   | 41.103    | .065                     | 33.067    | 20.00        | 1.70        | 1.0             | 1.300                     | 56.214         | .000             | 57.514           |
| 12-97          | .000                   | 32.882    | .000                     | 26.453    | 20.00        | 1.70        | 1.0             | .000                      | 44.970         | .000             | 44.970           |
| 12-98          | .000                   | 26.306    | .000                     | 21.163    | 20.00        | 1.70        | 1.0             | .000                      | 35.977         | .000             | 35.977           |
| 12-99          | .000                   | 18.491    | .000                     | 14.876    | 20.00        | 1.70        | 1.0             | .000                      | 25.289         | .000             | 25.289           |
| 12- 0          |                        |           |                          |           |              |             |                 |                           |                |                  |                  |
| 12- 1          |                        |           |                          |           |              |             |                 |                           |                |                  |                  |
| 12- 2          |                        |           |                          |           |              |             |                 |                           |                |                  |                  |
| 12- 3          |                        |           |                          |           |              |             |                 |                           |                |                  |                  |
| 12- 4          |                        |           |                          |           |              |             |                 |                           |                |                  |                  |
| 12- 5          |                        |           |                          |           |              |             |                 |                           |                |                  |                  |
| 12- 6          |                        |           |                          |           |              |             |                 |                           |                |                  |                  |
| S TOT          | 1.474                  | 322.197   | 1.186                    | 259.205   | 20.00        | 1.70        | .0              | 23.720                    | 440.649        | .000             | 464.369          |
| REM.           | .000                   | .000      | .000                     | .000      | .00          | .00         | .0              | .000                      | .000           | .000             | .000             |
| TOTAL          | 1.474                  | 322.197   | 1.186                    | 259.205   | 20.00        | 1.70        | .0              | 23.720                    | 440.649        | .000             | 464.369          |

| -END-<br>MO-YR | -----OPERATIONS, M\$----- |                 |                      |                         | -----CAPITAL COSTS, M\$----- |                  |                  |                  | CASH FLOW<br>BTAX, M\$ | 10.00 PCT<br>CUM. DISC<br>BTAX, M\$ |
|----------------|---------------------------|-----------------|----------------------|-------------------------|------------------------------|------------------|------------------|------------------|------------------------|-------------------------------------|
|                | SEVERANCE<br>TAXES        | AD VAL<br>TAXES | NET OPER<br>EXPENSES | OPERATIONS<br>CASH FLOW | TANGIBLE<br>COSTS            | INTANG.<br>COSTS | LSEHOLD<br>COSTS | SALVAGE<br>VALUE |                        |                                     |
| 12-92          | .944                      | .151            | 2.000                | 8.649                   | 73.000                       | 114.000          | .000             | .000             | -178.351               | -178.385                            |
| 12-93          | 9.790                     | 1.568           | 24.000               | 86.415                  | .000                         | .000             | .000             | .000             | 86.415                 | -96.612                             |
| 12-94          | 7.544                     | 1.208           | 24.000               | 61.082                  | .000                         | .000             | .000             | .000             | 61.082                 | -44.066                             |
| 12-95          | 5.891                     | .943            | 24.000               | 42.434                  | .000                         | .000             | .000             | .000             | 42.434                 | -10.881                             |
| 12-96          | 4.625                     | .740            | 24.000               | 28.149                  | .000                         | .000             | .000             | .000             | 28.149                 | 9.132                               |
| 12-97          | 3.616                     | .579            | 24.000               | 16.775                  | .000                         | .000             | .000             | .000             | 16.775                 | 19.974                              |
| 12-98          | 2.893                     | .463            | 24.000               | 8.621                   | .000                         | .000             | .000             | .000             | 8.621                  | 25.039                              |
| 12-99          | 2.033                     | .326            | 20.786               | 2.144                   | .000                         | .000             | .000             | .000             | 2.144                  | 26.191                              |
| 12- 0          |                           |                 |                      |                         |                              |                  |                  |                  |                        |                                     |
| 12- 1          |                           |                 |                      |                         |                              |                  |                  |                  |                        |                                     |
| 12- 2          |                           |                 |                      |                         |                              |                  |                  |                  |                        |                                     |
| 12- 3          |                           |                 |                      |                         |                              |                  |                  |                  |                        |                                     |
| 12- 4          |                           |                 |                      |                         |                              |                  |                  |                  |                        |                                     |
| 12- 5          |                           |                 |                      |                         |                              |                  |                  |                  |                        |                                     |
| 12- 6          |                           |                 |                      |                         |                              |                  |                  |                  |                        |                                     |
| S TOT          | 37.336                    | 5.978           | 166.786              | 254.269                 | 73.000                       | 114.000          | .000             | .000             | 67.269                 | 26.191                              |
| REM.           | .000                      | .000            | .000                 | .000                    | .000                         | .000             | .000             | .000             | .000                   | 26.191                              |
| TOTAL          | 37.336                    | 5.978           | 166.786              | 254.269                 | 73.000                       | 114.000          | .000             | .000             | 67.269                 | 26.191                              |

WHITE RANCH #1  
NE/NE SEC 1-T12S-R28E  
MISSISSIPPIAN RECOMPLETION  
CHAVES COUNTY NEW MEXICO

DATE: 12/16/92  
TIME: 07:31.56  
FILE: TRAINER  
GET#: 1

AFTER TAX ECONOMICS

PREPARED FOR  
C.W. TRAINER

AS OF DECEMBER 1, 1992

| -END-<br>MO-YR | OPER CASH<br>FLOW, M\$ | DEPR.<br>EXP., M\$ | DEPL.<br>EXP., M\$ | INTANG.<br>EXP., M\$ | INTEREST<br>EXP., M\$ | TAXABLE<br>INCOME M\$ | TAX<br>CREDIT M\$ | TAXES<br>PAYABLE M\$ | CASH FLOW<br>ATAX, M\$ | 10.00 PCT<br>CUM. DISC<br>ATAX, M\$ |
|----------------|------------------------|--------------------|--------------------|----------------------|-----------------------|-----------------------|-------------------|----------------------|------------------------|-------------------------------------|
| 12-92          | 8.649                  | 1.779              | .000               | 114.000              | .000                  | -107.130              | 3.247             | -39.671              | -138.681               | -138.872                            |
| 12-93          | 86.415                 | 18.689             | .000               | .000                 | .000                  | 67.726                | 34.089            | -11.062              | 97.477                 | -46.632                             |
| 12-94          | 61.082                 | 14.655             | .000               | .000                 | .000                  | 46.427                | 26.734            | -10.949              | 72.031                 | 15.332                              |
| 12-95          | 42.434                 | 11.576             | .000               | .000                 | .000                  | 30.858                | 21.117            | -10.625              | 53.059                 | 56.827                              |
| 12-96          | 28.149                 | 9.171              | .000               | .000                 | .000                  | 18.978                | 16.729            | -10.276              | 38.425                 | 84.145                              |
| 12-97          | 16.775                 | 7.252              | .000               | .000                 | .000                  | 9.523                 | 13.227            | -9.989               | 26.764                 | 101.443                             |
| 12-98          | 8.621                  | 5.800              | .000               | .000                 | .000                  | 2.821                 | 10.582            | -9.623               | 18.244                 | 112.162                             |
| 12-99          | 2.144                  | 4.078              | .000               | .000                 | .000                  | -1.934                | 7.438             | -8.096               | 10.240                 | 117.666                             |
| 12- 0          |                        |                    |                    |                      |                       |                       |                   |                      |                        |                                     |
| 12- 1          |                        |                    |                    |                      |                       |                       |                   |                      |                        |                                     |
| 12- 2          |                        |                    |                    |                      |                       |                       |                   |                      |                        |                                     |
| 12- 3          |                        |                    |                    |                      |                       |                       |                   |                      |                        |                                     |
| 12- 4          |                        |                    |                    |                      |                       |                       |                   |                      |                        |                                     |
| 12- 5          |                        |                    |                    |                      |                       |                       |                   |                      |                        |                                     |
| 12- 6          |                        |                    |                    |                      |                       |                       |                   |                      |                        |                                     |
| S TOT          | 254.269                | 73.000             | .000               | 114.000              | .000                  | 67.269                | 133.161           | -110.289             | 177.558                | 117.666                             |
| REM.           | .000                   | .000               | .000               | .000                 | .000                  | .000                  | .000              | .000                 | .000                   | 117.666                             |
| TOTAL          | 254.269                | 73.000             | .000               | 114.000              | .000                  | 67.269                | 133.161           | -110.289             | 177.558                | 117.666                             |

|                               |            |                               |            | -----PRESENT WORTH PROFILE----- |           |           |
|-------------------------------|------------|-------------------------------|------------|---------------------------------|-----------|-----------|
| BTAX RATE OF RETURN (PCT)     | 18.99      | ATAX RATE OF RETURN (PCT)     | 58.28      | DISC                            | PW OF NET | PW OF NET |
| BTAX PAYOUT YEARS             | 2.81       | ATAX PAYOUT YEARS             | 1.66       | RATE                            | BTAX, M\$ | ATAX, M\$ |
| BTAX PAYOUT YEARS (DISC)      | 3.63       | ATAX PAYOUT YEARS (DISC)      | 1.84       | ----                            | -----     | -----     |
| BTAX NET INCOME/INVEST        | 1.36       | ATAX NET INCOME/INVEST        | 1.95       | .0                              | 67.269    | 177.560   |
| BTAX NET INCOME/INVEST (DISC) | 1.14       | ATAX NET INCOME/INVEST (DISC) | 1.63       | 2.0                             | 57.726    | 163.430   |
|                               |            |                               |            | 5.0                             | 44.767    | 144.448   |
| PRODUCTION START DATE         | 12/ 1/92   | PROJECT LIFE (YEARS)          | 6.95       | 8.0                             | 33.215    | 127.733   |
| MONTHS IN FIRST LINE          | 1.00       | DISCOUNT RATE (PCT)           | 10.00      | 10.0                            | 26.191    | 117.666   |
| GROSS WELLS                   | 1.00       | PRIOR DEPL. BASIS (M\$)       | .000       | 12.0                            | 19.649    | 108.360   |
|                               |            | PRIOR DEPR. BASIS (M\$)       | .000       | 15.0                            | 10.644    | 95.654    |
|                               |            |                               |            | 18.0                            | 2.490     | 84.262    |
| MAX. OIL PRICE (\$/B)         | 20.00      | MAX. GAS PRICE (\$/M)         | 1.70       | 20.0                            | -2.527    | 77.304    |
| GROSS OIL WELLS               | .00        | GROSS GAS WELLS               | 1.00       | 25.0                            | -13.810   | 61.808    |
|                               |            |                               |            | 30.0                            | -23.571   | 48.579    |
| CUMULATIVE OIL (MBSL)         | .000       | CUMULATIVE GAS (MMCF)         | .000       | 35.0                            | -32.089   | 37.165    |
| REMAINING OIL (MBSL)          | 1.474      | REMAINING GAS (MMCF)          | 322.197    | 40.0                            | -39.583   | 27.227    |
| ULTIMATE OIL (MBSL)           | 1.474      | ULTIMATE GAS (MMCF)           | 322.197    | 45.0                            | -46.222   | 18.503    |
|                               |            |                               |            | 50.0                            | -52.141   | 10.787    |
|                               |            |                               |            | 60.0                            | -62.243   | -2.240    |
|                               |            |                               |            | 70.0                            | -70.541   | -12.810   |
| INITIAL W.I. FRACTION         | 1.00000000 | FINAL W.I. FRACTION           | 1.00000000 | 80.0                            | -77.478   | -21.560   |
| INITIAL NET OIL FRACTION      | .80449220  | FINAL NET OIL FRACTION        | .80449220  | 90.0                            | -83.365   | -28.927   |
| INITIAL NET GAS FRACTION      | .80449220  | FINAL NET GAS FRACTION        | .80449220  | 100.0                           | -88.425   | -35.219   |