

RECEIVED

|                                                                                                                              |  |                                     |  |                                       |  |
|------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------|--|---------------------------------------|--|
| Type of Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  | Test Date<br>5-12-78                |  | JUL 12 1978                           |  |
| Company<br>BLACK RIVER CORPORATION                                                                                           |  | Operator<br>EL PASO NATURAL GAS CO. |  |                                       |  |
| Location<br>SOUTH CARLSBAD                                                                                                   |  | MORROW                              |  | Unit<br>D. C. C.<br>ARTESIA, OFFICE   |  |
| Completion Date<br>3-7-78                                                                                                    |  | Total Depth<br>11,842'              |  | Elevation<br>3138.8 GR.               |  |
| Casing Size<br>5" LNER                                                                                                       |  | Casing Weight<br>29.70#/18.00#      |  | Perforations<br>11,697' to 11,706'    |  |
| Casing Depth<br>2 3/8"                                                                                                       |  | Casing Weight<br>4.6#               |  | Perforations<br>OPEN ENDED            |  |
| Type of Well - Single - Bradenhead - G.G. or G.O. Multiple<br>SINGLE                                                         |  | Packer Set At<br>11,617'            |  | County<br>EDDY                        |  |
| Producing Tubing<br>TUBING                                                                                                   |  | Reservoir Temp. °F<br>60            |  | Baro. Press. - P <sub>a</sub><br>13.2 |  |
| H                                                                                                                            |  | G <sub>g</sub><br>0.582             |  | Prover<br>Meter Run<br>4"             |  |
| G <sub>g</sub>                                                                                                               |  | % CO <sub>2</sub>                   |  | % H <sub>2</sub> S                    |  |
| Taps<br>FLANGE                                                                                                               |  |                                     |  |                                       |  |

  

| FLOW DATA |                  |   |              |                 |            | TUBING DATA |                 | CASING DATA |                 | Duration of Flow |          |
|-----------|------------------|---|--------------|-----------------|------------|-------------|-----------------|-------------|-----------------|------------------|----------|
| NO.       | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. in W | Temp. °F    | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. |                  | Temp. °F |
| 1         | 4"               | X | 1,000"       |                 |            |             | 480             |             |                 |                  | 24 HRS   |
| 2         |                  |   |              |                 |            |             |                 |             |                 |                  |          |
| 3         |                  |   |              |                 |            |             |                 |             |                 |                  |          |
| 4         |                  |   |              |                 |            |             |                 |             |                 |                  |          |
| 5         |                  |   |              |                 |            |             |                 |             |                 |                  |          |

  

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                                  |                               |                                        |                      |
|---------------------------|-----------------------|------------------|-------------------------|----------------------------------|-------------------------------|----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor F <sub>t</sub> | Gravity Factor F <sub>g</sub> | Super Compress. Factor F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         | 4.753                 | 178.3            | 493.2                   | 1.000                            | 1.311                         |                                        | 1,111                |
| 2                         |                       |                  |                         |                                  |                               |                                        |                      |
| 3                         |                       |                  |                         |                                  |                               |                                        |                      |
| 4                         |                       |                  |                         |                                  |                               |                                        |                      |
| 5                         |                       |                  |                         |                                  |                               |                                        |                      |

  

| NO. | P <sub>c</sub> | Temp. °R | T <sub>c</sub> | Z | Gas Liquid Hydrocarbon Ratio Mcf/bbl. | A.P.L. Gravity of Liquid Hydrocarbons Deg. |
|-----|----------------|----------|----------------|---|---------------------------------------|--------------------------------------------|
| 1   |                |          |                |   | Specific Gravity Separator Gas 0.582  | XXXXXXX                                    |
| 2   |                |          |                |   | Specific Gravity Flowing Fluid XXXXX  |                                            |
| 3   |                |          |                |   | Critical Pressure P.S.I.A.            | P.S.I.A.                                   |
| 4   |                |          |                |   | Critical Temperature R                | R                                          |
| 5   |                |          |                |   |                                       |                                            |

  

| NO. | P <sub>c</sub> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_c^2}{P_c^2 - P_w^2} =$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ |
|-----|----------------|----------------|-----------------------------|-----------------------------------------------------------|-------------------------------------|------------------------------------------------------|
| 1   |                |                |                             |                                                           |                                     |                                                      |
| 2   |                |                |                             |                                                           |                                     |                                                      |
| 3   |                |                |                             |                                                           |                                     |                                                      |
| 4   |                |                |                             |                                                           |                                     |                                                      |
| 5   |                |                |                             |                                                           |                                     |                                                      |

  

|                                                                                                                                                                           |  |                       |  |                    |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------|--|--------------------|--|
| Absolute Open Flow Mcfd @ 15.025                                                                                                                                          |  | Angle of Slope θ      |  | Slope, n           |  |
| Remarks: THE 24 HOUR FLOW TEST WAS CONDUCTED IN LIEU OF THE CONVENTIONAL 4-POINT TEST.<br>IT WAS FEARED SHUTTING THE WELL IN WOULD CAUSE IT TO LOG OFF AND NOT COME BACK. |  |                       |  |                    |  |
| Approved By Commission                                                                                                                                                    |  | Conducted By: B.J.T.  |  | Checked By: J.W.W. |  |
|                                                                                                                                                                           |  | Calculated By: M.C.T. |  |                    |  |

ILLEGIBLE