

1-File  
1-C-123  
**RECEIVED**

|                                                                                                                           |  |                                    |                        |                                       |                              |
|---------------------------------------------------------------------------------------------------------------------------|--|------------------------------------|------------------------|---------------------------------------|------------------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  | Test Date<br>3-12-79               |                        | MAR 30 1979                           |                              |
| Company<br>Hannagan Petroleum Corp.                                                                                       |  |                                    | Connection<br>None     |                                       | O.C.C.<br>ARTIFICIAL, OFFICE |
| Produced by<br>Unconquered                                                                                                |  |                                    | Formation<br>Morrow    |                                       |                              |
| Completion Date<br>Temp. Blanked off                                                                                      |  | Total Depth<br>11280               |                        | Flow Back PD<br>11240                 |                              |
|                                                                                                                           |  |                                    |                        | Elevation<br>3356 KB                  |                              |
| Form or Lease Name<br>Rifle Federal Conv.                                                                                 |  |                                    |                        |                                       |                              |
| Casing Size<br>4 1/2                                                                                                      |  | WT.<br>11.60                       |                        | ID<br>4.000                           |                              |
|                                                                                                                           |  |                                    |                        | Set At<br>11280                       |                              |
| Perforations:<br>From 10856 To 11203                                                                                      |  | Well No.<br>2                      |                        |                                       |                              |
| Perforations:<br>From To                                                                                                  |  | Unit<br>C                          |                        | Soc. 28 Twp. 21S Rge. 26E             |                              |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |  |                                    | Factor Set At<br>10792 |                                       | County<br>Eddy               |
| Production Data<br>Tubing                                                                                                 |  | Reservoir Temp. °F<br>184 @ 10750' |                        | Mean Annual Temp. °F<br>60            |                              |
|                                                                                                                           |  |                                    |                        | Baro. Press. - P <sub>0</sub><br>13.2 |                              |
| State<br>New Mexico                                                                                                       |  |                                    |                        |                                       |                              |
| L<br>11030                                                                                                                |  | H<br>11030                         |                        | Gg<br>0.597                           |                              |
|                                                                                                                           |  |                                    |                        | % CO <sub>2</sub>                     |                              |
|                                                                                                                           |  |                                    |                        | % N <sub>2</sub>                      |                              |
|                                                                                                                           |  |                                    |                        | % H <sub>2</sub> S                    |                              |
| Prover<br>Pos. Ck.                                                                                                        |  | Meter Run                          |                        | Taps                                  |                              |

  

| FLOW DATA |                  |   |              |                 |                      |          | TUBING DATA     |          | CASING DATA     |          | Duration of Flow |
|-----------|------------------|---|--------------|-----------------|----------------------|----------|-----------------|----------|-----------------|----------|------------------|
| NO.       | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. h <sub>w</sub> | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | Temp. °F |                  |
| SI        | 39 hours         |   |              | 3413            |                      |          | 3413            |          | Pkr.            |          |                  |
| 1.        | 2"               | X | 6/64"        | 3270            |                      | 58       | 3270            | 58       | "               |          | 60 min.          |
| 2.        | 2"               | X | 8/64"        | 2921            |                      | 66       | 2921            | 66       | "               |          | 60 min.          |
| 3.        | 2"               | X | 11/64"       | 2450            |                      | 70       | 2450            | 70       | "               |          | 60 min.          |
| 4.        | 2"               | X | 14/64"       | 1923            |                      | 70       | 1923            | 70       | "               |          | 60 min.          |
| 5.        |                  |   |              |                 |                      |          |                 |          |                 |          |                  |

  

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                      |                               |                                         |                      |
|---------------------------|-----------------------|------------------|-------------------------|----------------------|-------------------------------|-----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor FL | Gravity Factor F <sub>g</sub> | Super Compress. Factor, C <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         | 0.1418                |                  | 3283.2                  | 1.002                | 1.294                         | 1.128                                   | 680.9                |
| 2                         | 0.2613                |                  | 2934.2                  | 0.9943               | 1.294                         | 1.132                                   | 1118.8               |
| 3                         | 0.5090                |                  | 2463.2                  | 0.9905               | 1.294                         | 1.139                                   | 1830.3               |
| 4                         | 0.8419                |                  | 1936.2                  | 0.9905               | 1.294                         | 1.132                                   | 2355.1               |
| 5                         |                       |                  |                         |                      |                               |                                         |                      |

  

| NO. | P <sub>f</sub> | Temp. °R | T <sub>f</sub> | Z     | Gas Liquid Hydrocarbon Ratio | Dry Gas Mcf/Ebl. |
|-----|----------------|----------|----------------|-------|------------------------------|------------------|
| 1   | 4.89           | 518      | 1.46           | 0.786 |                              |                  |
| 2   | 4.37           | 526      | 1.49           | 0.780 |                              |                  |
| 3   | 3.67           | 530      | 1.50           | 0.771 |                              |                  |
| 4   | 2.98           | 530      | 1.50           | 0.780 |                              |                  |
| 5   |                |          |                |       |                              |                  |

  

| NO. | P <sub>f</sub> | P <sub>s</sub> | P <sub>2</sub> | P <sub>2</sub> - P <sub>s</sub> | (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   | 4201.2         | 17650          | 1431           |                                 | 1.5923391                         | 1.457216                                           |
| 2   | 3779.2         | 14282          | 4799           |                                 |                                   |                                                    |
| 3   | 3195.2         | 10209          | 8872           |                                 |                                   |                                                    |
| 4   | 2664.2         | 7098           | 11983          |                                 |                                   |                                                    |
| 5   |                |                |                |                                 |                                   |                                                    |

  

|                                                                                 |  |                 |              |                |     |              |          |
|---------------------------------------------------------------------------------|--|-----------------|--------------|----------------|-----|--------------|----------|
| Absolute Flow                                                                   |  | 3446.46         | Mcf @ 15.025 | Angle of Slope | 51° | Factor, n    | 0.809382 |
| Remarks: BHP measured with Amerada RFG-3 gauge serial number 124684 0-6000 psig |  |                 |              |                |     |              |          |
| Conducted By:                                                                   |  | Teffeller, Inc. |              | Calculated By: |     | F. Tefteller |          |

*Handwritten:*  
Packed  
40-24 bbl  
4.6 gpi  
SI