

15-103-21021-00-00  
**STATE OF KANSAS - CORPORATION COMMISSION**  
**MULTIPOINT BACK PRESSURE TEST**

**FORM CG-1**

**TYPE TEST:**  Initial  Annual  Special **TEST DATE:** August 21, 1988

**COMPANY:** Fairway Petroleum, Inc. **LEASE:** VISOCKY **WELL NO.:** 3

**COUNTY:** Leavenworth **LOCATION:** SE SW SW **SECTION:** 12 **TWP:** 8S **RNG:** 21E **ACRES:** 40

**FIELD:** **RESERVOIR:** **PIPELINE CONNECTION:**

**COMPLETION DATE:** 8/14/88 **PLUG BACK TOTAL DEPTH:** 1335 **PACKER SET AT:**

**CASING SIZE:** 4 1/2" **WT.:** **ID:** 4 1/2" **SET AT:** 1335 **PERF.:** 1267 **TO:** 1274

**TUBING SIZE:** **WT.:** **ID:** **SET AT:** **PERF.:** **TO:**

**TYPE COMPLETION (Describe):** Perforated **TYPE FLUID PRODUCTION:** oil

**PRODUCING THRU:** 4 1/2" casing **RESERVOIR TEMPERATURE P:** 76° **BAR PRESS - P<sub>a</sub>:** 14.4 Psia

**GAS GRAVITY - G<sub>g</sub>:** 0.5766 **CARBON DIOXIDE:** 0 **% NITROGEN:** 3.93% **API GRAVITY OF LIQUID:** 23.8

**VERTICAL DEPTH (H):** 1335 **TYPE METER CONN.:** none **(PROVER) SIZE:** 2"

**REMARKS:**

RECEIVED  
 STATE CORPORATION COMMISSION  
 SEP 12 1988  
 OIL & GAS DIVISION  
 Topeka, Kansas

**OBSERVED DATA** **DURATION OF SHUT-IN:** 72 HR.

| RATE No. | ORIFICE SIZE in. | (PROVER) PRESSURE psig | DIFF. (h <sub>w</sub> ) (h <sub>d</sub> ) | FLOWING TEMP. t | WELL-HEAD TEMP. t | CASING WELLHEAD PRESS. |  | TUBING WELLHEAD PRESS. |  | DURATION HOURS | LIQUID PROD. Bbls. |
|----------|------------------|------------------------|---|-----------------|-------------------|------------------------|--|------------------------|--|----------------|--------------------|
|          |                  |                        |   |                 |                   | psig                   | (P <sub>w</sub> )(P <sub>i</sub> )(P <sub>e</sub> ) psia | psig                   | (P <sub>w</sub> X P <sub>i</sub> )(P <sub>e</sub> ) psia |                |                    |
| SHUT IN  |                  |                        |   |                 |                   | 265.0                  | 279.4  |                        |  | 72             |                    |
| 1        | 0.50             | 228.0                  | -   | 76              | 76                | 228.0                  | 242.4  |                        |  | 1              |                    |
| 2        | 0.75             | 188.0                  | -   | 76              | 76                | 188.0                  | 202.4  |                        |  | 1              |                    |
| 3        | 1.00             | 141.0                  | -   | 76              | 76                | 141.0                  | 155.4  |                        |  | 1              |                    |
| 4        | 1.25             | 103.0                  | -   | 76              | 76                | 103.0                  | 117.4  |                        |  | 1              |                    |
| 5        |                  |                        |   |                 |                   |                        |  |                        |  |                |                    |

**RATE OF FLOW CALCULATIONS**

| RATE NO. | COEFFICIENT (F <sub>d</sub> )(F <sub>p</sub> ) Mcfd | (PROVER) PRESSURE psia | EXTENSION √P <sub>m</sub> h <sub>w</sub> | GRAVITY FACTOR F <sub>g</sub> | FLOWING TEMP FACTOR F <sub>t</sub> | DEVIATION FACTOR F <sub>pv</sub> | RATE OF FLOW Q Mcfd | GOR | Q <sub>m</sub> |
|----------|---|------------------------|--|-------------------------------|------------------------------------|----------------------------------|---------------------|-----|----------------|
| 1        | 4.388   | 242.4                  | -  | 1.3169                        | 0.984                              | 1.0174                           | 1402                |     |                |
| 2        | 9.694   | 202.4                  | -  | 1.3169                        | 0.984                              | 1.0143                           | 2579                |     |                |
| 3        | 17.53   | 155.4                  | -  | 1.3169                        | 0.984                              | 1.0107                           | 3568                |     |                |
| 4        | 28.34   | 117.4                  | -  | 1.3169                        | 0.984                              | 1.0081                           | 4346                |     |                |
| 5        |   |                        |  |                               |                                    |                                  |                     |     |                |

**PRESSURE CALCULATIONS**

| RATE NO. | P <sub>i</sub> psia | P <sub>e</sub> psia | P <sub>w</sub> psia | (P <sub>e</sub> ) <sup>2</sup> THOUSANDS | (P <sub>w</sub> ) <sup>2</sup> THOUSANDS | PLOTING POINTS  |        | 100 [(P <sub>w</sub> -P <sub>e</sub> )/(P <sub>e</sub> -P <sub>a</sub> )] |
|----------|---------------------|---------------------|---------------------|--|--|---|--------|---|
|          |                     |                     |                     |  |  | (P <sub>e</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup> THOUSANDS | Q Mcfd |   |
| 1        |                     | 279.4               | 242.4               | 78.06                                    | 58.76                                    | 19.30   | 1402   |   |
| 2        |                     | 279.4               | 202.4               | 78.06                                    | 40.97                                    | 37.09   | 2579   |   |
| 3        |                     | 279.4               | 155.4               | 78.06                                    | 24.15                                    | 53.91   | 3568   |   |
| 4        |                     | 279.4               | 117.4               | 78.06                                    | 13.78                                    | 64.28   | 4346   |   |
| 5        |                     |                     |                     |  |  |   |        |   |

**INDICATED WELLHEAD OPEN FLOW:** 5204 Mcfd @ 14.65 psia **GOR:** 0.94

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Executed this the 3 day of September, 1988

*[Signature]*  
 For Company

Witness (if any)

46 7202

**K+E** LOGARITHMIC 2 X 2 CYCLES  
KEUFFEL & ESSER CO. MADE IN U.S.A.

