## KANSAS CORPORATION COMMISSION ONE POINT STABLIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2 (Rev.8/98)

TYPE TEST:

Open Flow

| 🛛 Deliverabili                          | ty          | TEST DATE:         | 5/23/2012             |       | API No.     | 15-025-21                       | 1376-00-00                                     |  |
|---|-------------|--------------------|-----------------------|-------|-------------|---------------------------------|--|--|
| Company                                 |             |                    | Lease                 |       |             |                                 | Well Number                                    |  |
| John O. Farme                           | er          |                    | Giles A               |       |             |                                 | 1  |  |
| County                                  |             | Location           | Section               | TWP   | RNG (E/W)   |                                 | Acres Attributed                               |  |
| Clark                                   |             | W/2 NW SE          | 10 31\$               | 22W   |             |                                 | 160  |  |
| Field                                   |             | Reservoir          |                       | · -   | Gas Gather  | ing Connecti                    | on   |  |
|   |             | Mississippian      |                       |       | KGS         |                                 |  |  |
| Completion Date                         |             | Plug Back Total De | pth                   |       | Packer Set  | at                              | •  |  |
| 9/27/2006                               |             | 642                | 27                    |       | N/A         |                                 |  |  |
| Casing Size                             | Weight      | Internal Diameter  | Set at                |       | Perforation | ns To                           |  |  |
| 5.500                                   | 15.500      | 4.950              | 6497                  |       | 512         | 29 5136                         | 3  |  |
| Tubing Size                             | Weight      | Internal Diameter  | Set at                |       | Perforation | ns To                           | <u>.                                      </u> |  |
| 2.375                                   | 4.700       | 1.995              | 5110                  |       |             |                                 |  |  |
| Type Completion (De                     | scribe)     | Type Fluid Product | Type Fluid Production |       |             | Pump Unit or Traveling Plunger? |  |  |
| Single                                  |             | N/A                | 4                     |       | No          |                                 |  |  |
| Producing Thru(Annu                     | lus/Tubing) | % Carbon Dioxide   |                       |       | % Nitrogen  | 1                               | Gas Gravity- Gg                                |  |
| tubing                                  |             | 0.099              |                       |       | 5.398       |                                 | 0.645  |  |
| Vertical Depth (H)                      |             | Pressure Taps      |                       |       |             |                                 | Meter Run Size                                 |  |
| 5133                                    |             | flange             |                       |       |             |                                 | 2.067  |  |
| Pressure Buildup: Shut in 5/18/2012@ 13 |             |                    |                       | TAKEN | 5/22        | 2/2012@09                       | 945  |  |
| Well on Line: S                         | tarted 5    | /22/2012@0945      |                       | TAKEN | 5/23        | 3/2012@14                       | 400  |  |

## **OBSERVED SURFACE DATA**

| Static/ Orifice<br>Dynamic Size |       | 1     | Pressure<br>Diff. | Flowing<br>Temp. | WellHead<br>Temp. | Casing WellHead Press. (P <sub>w</sub> )(P <sub>t</sub> )(P <sub>C</sub> ) |      | Tubing WellHead Press. $(P_w)$ $(P_t)$ $(\Gamma_c)$ |      | Duration | Liquid<br>Prod. |
|---------------------------------|-------|-------|-------------------|------------------|-------------------|--|------|---|------|----------|-----------------|
| Property                        | in.   | psig  | In. H 20          | t.               | t.                | psig   | psia | psig  | psia | (Hours)  | Barrels         |
| Shut-in                         |       |       |                   |                  |                   | 265  | 280  | 240   | 254  | 92.7     |                 |
| Flow                            | 1.125 | 121.1 | 14.80             | 87               |                   | 211  | 226  | 202   | 216  | 28.2     |                 |

## **FLOW STREAM ATTRIBUTES**

| COEFFI<br>(F <sub>1</sub><br>Mcf | )  | (METER)<br>PRESSURE<br>psia | EXTENSION  V Pm * Hw | GRAVITY<br>FACTOR<br>Fg | FLOWING TEMP<br>FACTOR<br>Ft | DEVIATION<br>FACTOR<br>Fpv | RATE OF FLOW<br>R<br>Mcfd | GOR | G m   |
|----------------------------------|----|-----------------------------|----------------------|-------------------------|------------------------------|----------------------------|---------------------------|-----|-------|
| 6.5                              | 57 | 135.5                       | 44.78                | 1.2451                  | 0.9750                       | 1.0096                     | 359                       |     | 0.645 |

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS  $(Pa)^2 = 0.207$  $(Pd)^2 = 14.67$ 78.4 43.2 51.1 Pd = (Pc - 14.4) + 14.4 = $(P_c)^2 - (P_a)^2$ Backpressure Open Flow Curve Slope"n" Deliverability = R x Antilog LOG Assigned n 🗴 LOG Antilog Mcfd Standard Slope 78.19 27.28 2.866 0.4573 0.517 0.2364 1.724 620 63.73 27.28 2.336 0.3686 0.517 0.1905 1.551 558

| OPEN FLOW           | 620                       | Mcfd @ 14.65 psia                       | DELIVERABILITY                     | 558           | Mcfd 0 14.65 psia          |
|---------------------|---------------------------|---|------------------------------------|---------------|----------------------------|
|                     | •                         | f the Company, states that he is duly a | uthorized to make the above report | and that he l | nas knowledge of the facts |
| stated herein and d | int said Teport is true a | ind correct. Executed this the          | Gay 61                             |               |                            |
| Witne               | css (if any)              | <u> </u>                                | WECE <del>INE</del>                | <del>)</del>  | Por Company                |
| For C               | Commission                | <del></del> -                           | MAY 2 5 20                         | 112           | Checked by                 |

KCC WICHITA