

**KANSAS CORPORATION COMMISSION  
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST**

FORM G-2  
(Rev 8/98)

TYPE TEST:

- Open Flow  
 Deliverability

TEST DATE: 11-10-15 API No. 15-175-22221-00-00

|   |                                |  |                       |                                 |                               |
|---|--------------------------------|--|-----------------------|---------------------------------|-------------------------------|
| Company<br><b>American Warrior</b>              |                                | Lease<br><b>Handy</b>                            |                       | Well Number<br><b>10-29</b>     |                               |
| County<br><b>Seward</b>                         | Location<br><b>NW SW SE SW</b> | Section<br><b>29 34S 31W</b>                     | TWP                   | RNG(E/W)                        | Acres Attributed              |
| Field<br><b>Morrow</b>                          |                                | Gas Gathering Connection<br><b>DCP Midstream</b> |                       |                                 |                               |
| Completion Date<br><b>8/14/14</b>               |                                | Plug Back Total Depth<br><b>6464</b>             |                       | Packer Set at<br><b>N/A</b>     |                               |
| Casing Size<br><b>5.500</b>                     | Weight<br><b>15.500</b>        | Internal Diameter<br><b>4.950</b>                | Set at<br><b>6494</b> | Perforations<br><b>5850</b>     | To<br><b>5860</b>             |
| Tubing Size<br><b>2.375</b>                     | Weight<br><b>4.700</b>         | Internal Diameter<br><b>1.995</b>                | Set at                | Perforations                    | To                            |
| Type Completion (Describe)<br><b>Gas</b>        |                                | Type Fluid Production                            |                       | Pump Unit or Traveling Plunger? |                               |
| Producing Thru(Annulus/Tubing)<br><b>Tubing</b> |                                | % Carbon Dioxide<br><b>.165</b>                  |                       | % Nitrogen<br><b>2.920</b>      | Gas Gravity- Gg<br><b>671</b> |
| Vertical Depth (ft)<br><b>5855</b>              |                                | Pressure Taps<br><b>Flange</b>                   |                       | Motor Run Size<br><b>2.067</b>  |                               |
| Pressure Buildup: Shut in                       |                                | 11-7-15 @ 9:00 A.M                               |                       | TAKEN                           | 11-10-15 @ 9:00 A             |
| Well on Line: Started                           |                                | 11-10-15 @ 9:00 A.                               |                       | TAKEN                           | 11-11-15 @ 9:00 A.            |

**OBSERVED SURFACE DATA**

| Static/<br>Dynamic<br>Property | Orifice<br>Size<br>in. | Motor<br>Pressure<br>psig | Pressure<br>Diff.<br>In. H <sub>2</sub> O | Flowing<br>Temp.<br>t. | Wellhead<br>Temp.<br>t. | Casing Wellhead Press.<br>(P <sub>w</sub> ) (P <sub>t</sub> ) (P <sub>c</sub> ) |      | Tubing Wellhead Press.<br>(P <sub>w</sub> ) (P <sub>t</sub> ) (P <sub>c</sub> ) |      | Duration<br>(Hours) | Liquid<br>Prod.<br>Barrels |
|--------------------------------|------------------------|---------------------------|---|------------------------|-------------------------|---|------|---|------|---------------------|----------------------------|
|                                |                        |                           |   |                        |                         | psig  | psia | psig  | psia |                     |                            |
| Shut-in                        |                        |                           |   |                        |                         | 895   | 909  | 713   | 727  | 72.0                |                            |
| Flow                           | 1.500                  | 58.8                      | 10.00                                     | 60                     | 60                      | 815   | 829  | 468   | 482  | 24.0                |                            |

**FLOW STREAM ATTRIBUTES**

| COEFFICIENT<br>(F <sub>D</sub> )<br>Mcfd | (METER)<br>PRESSURE<br>psia | EXTENSION<br>$\sqrt{P_{in} \times E_w}$ | GRAVITY<br>FACTOR<br>F <sub>g</sub> | FLOWING TEMP<br>FACTOR<br>F <sub>t</sub> | DEVIATION<br>FACTOR<br>F <sub>pv</sub> | RATE OF FLOW<br>R<br>Mcfd | COR | G <sub>m</sub> |
|--|-----------------------------|---|-------------------------------------|--|--|---------------------------|-----|----------------|
| 13.090                                   | 73.2                        | 27.06                                   | 1.2208                              | 1.0000                                   | 1.0069                                 | 435                       |     | 671            |

**(OPEN FLOW)(DELIVERABILITY) CALCULATIONS**

(P<sub>o</sub>)<sup>2</sup> = 827.7      (P<sub>w</sub>)<sup>2</sup> = 688.8      P<sub>d</sub> =      (P<sub>c</sub> - 14.4) + 14.4 =      (P<sub>a</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> =

| $(P_o)^2 - (P_w)^2$ | $(P_o)^2 - (P_w)^2$ | $\frac{(P_o)^2 - (P_w)^2}{(P_o)^2 - (P_w)^2}$ OR $\frac{(P_o)^2 - (P_w)^2}{(P_o)^2 - (P_w)^2}$ | LOG   | Backpressure Curve Slope "n" OR Assigned Standard Slope | n x LOG | Antilog | Open Flow Deliverability = R x Antilog Mcfd |
|---------------------|---------------------|--|-------|---|---------|---------|---|
| 827.53              | 139.17              | 5.946  | .7742 | 1.014   | .7851   | 6.097   | 2653  |

**OPEN FLOW**      2653      Mcfd @ 14.65 psia      **DELIVERABILITY**      Mcfd @ 14.65 psia

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 herein and that said report is true and correct. Executed this the 13<sup>th</sup> day of November, 2015

Witness (if any) \_\_\_\_\_  
For Commission \_\_\_\_\_

Received  
**KANSAS CORPORATION COMMISSION**  
 CONSERVATION DIVISION  
 WICHITA, KS  
**NOV 13 2015**

American Warrior  
 For Company  
Hosco T+M  
 Checked by