KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

| Type Tes | st: | | | | (| (See Instruc | tions on Rev | verse Side | s) | | | | | |
|--|-----------|--|--|---|---|-----------------------|--|-------------|---|--|---------------------------------------|----------------------|---|--|
| Open Flow Deliverability | | | | Test Date: | | | API No. 15 | | | | | | | |
| | | olity | | | 2-10 | -// | | | 075 | -20641-00 | · · · · · · · · · · · · · · · · · · · | | | |
| Compan Horses | y shoe | Оре | erating, Inc |) . | | | Lease George | • | | | 1 | Well Num | ber | |
| County Hamilton | | | Location NW SW SE | | Section 1 | | TWP 22S | | RNG (E/W) 42W | | | Acres Attributed 320 | | |
| Field Bradshaw | | | | | | Reservoir Winfield | | | | Gas Gathering Connection Oneok Field Service | | | | |
| Completi 10/23/9 | | te | | | Plug Bac 2735 | k Total Dep | th | | Packer S | et at | | | | |
| Casing Size 4.5 | | | Welght 10.5 | | Internal Diameter 4.052 | | Set at 2739 | | Perforations 2696 | | To 2 7 08 | | | |
| Tubing Size 2.375 | | | Weigh 4.7 | t . | Internal I | Diameter | ameter Set at 2716 | | Perforations | | То | То | | |
| Type Cor Single | | | escribe) | | Type Flui Water | d Production | n | <u>'</u> | Pump Un | it or Traveling | Plunger? Yes | / No | | |
| Producin | | US. | onidus / Tubing | 3) | % C | arbon Dioxi | ide | | % Nitrog | en . | Gas Gr | avity - G | | |
| Vertical D | | | | 1 | • | Pres | sure Taps Flang | D. | | , | (Meter I | Run) (Pro | ver) Size | |
| Pressure | Builde | ip: | Shut In c | 2-9 2 | o // at | 10:30 | (AM) (PM) | Taken | 2-1 | 020 | // at /0:3 | 30 (A | M) (PM) | |
| Well on L | .ine: | ; | Started | 2 | 0 at | | (AM) (PM) | Taken | | 20 | at | (Al | M) (PM) | |
| | | | | | | OBSERVE | D SURFACE | | γ <u></u> - | | Duration of Shut- | in 2 | Hours | |
| Static / Orification Size Property (inches | | .e | Circle one: Meter Prover Pressu pslg (Pm) | Pressure Differential in Inches H ₀ 0 | Flowing Well Head Temperature t t | | Casing Wellhead Pressure (P _u) or (P ₁) or (P _c) psig psia | | Tubing Wellhead Pressure (P _w) or (P _t) or (P _c) psig psia | | Duration Liqu (Hours) | | Produced rrels) | |
| Shut-In | .50 | 00 | | | : | | leiñ " | 57 | psig | psia | 24 | 1 | | |
| Flow | <u> </u> | | | | | | | | · | | | | - | |
| - | | , | | | - | FLOW STR | REAM ATTRI | BUTES | Т | | | | | |
| Plate Coefficient (F _b) (F _p) Mcfd | | Pro | Circle one: Meter or ver Pressure psla | Press Extension P _m x h | Grav Fact F _s | Townson tree | | Fe | iation actor | Metered Flow R (Mcfd) | GOR (Cubic Fe Barrel) | | Flowing Fluid Gravity G _m | |
| · · · · · · | | | | | (ODEN EL | OW (DELIV | ERABILITY) | CALCIII | ATIONS | · <u>-</u> - | | | | |
| (P _c) ² = | | _: | (P _w) ² = | <u></u> : | P _d = | • • | = | - 14.4) + | | | (P _a) | ² = 0.207 | <u> </u> | |
| $(P_a)^2 - (P_a)^2$ or $(P_a)^2 - (P_a)^2$ | | (P _c)²- (P _w)² | | 1. P _a ² • P _a ² 2. P _b ² • P _a ² divided by: P _a ² • P _w ² | LOG of formula 1. or 2. and divide | P.2. P.2 | Backpressure Cur Slope = "n" | | l n x t | .00 | Antilog | Delive Equals F | Open Flow eliverability als R x Antilog (Mcfd) | |
| | | | | | | | <u> </u> | | | | | ' | | |
| Open Flo | w | | | Mcfd @ 14. | 65 psia | | Deliverab | ility | | | Mcfd @ 14.65 ps | ia | | |
| | | • | • | behalf of the | | | · | 11. | o make th | e above repo Mau | rt and that he ha | as knowle | | |
| | | | | | : - | | | | anie. | e Ri | pley | | | |
| | | | Witness (if | any) | | | _ | | | For (| | RECEI | VED | |
| | | | For Commi | ssion | | | | | | Cher | ked by | AAY 2 | 7 2011 | |

KCC WICHITA

| | . |
|---|---|
| exempt status under Rule K.A.F and that the foregoing pressur correct to the best of my knowled of equipment installation and/or | perjury under the laws of the state of Kansas that I am authorized to request 1.82-3-304 on behalf of the operator Horseshoe Operating, Inc. e information and statements contained on this application form are true and adge and belief based upon available production summaries and lease records upon type of completion or upon use being made of the gas well herein named. |
| | exemption from open flow testing for the George 1 |
| gas well on the grounds that sa | ia weii: |
| (Check one) | |
| ` <u> </u> | methane producer |
| <u></u> | plunger lift due to water |
| - | of natural gas for injection into an oil reservoir undergoing ER |
| <u></u> | at the present time; KCC approval Docket No. |
| = | le of producing at a daily rate in excess of 250 mcf/D |
| ٠ . | |
| I further agree to supply to | the best of my ability any and all supporting documents deemed by Commission |
| staff as necessary to corrobora | te this claim for exemption from testing. |
| | |
| Date: 5-24-11 | |
| Date | - |
| | |
| | • |
| | Signature: <u>Janice Ripley</u> Title: <u>Production Assistant</u> |
| | |
| | • |

instructions:

If a gas well meets one of the eligibility criteria set out in KCC regulation K.A.R. 82-3-304, the operator may complete the statement provided above in order to claim exempt status for the gas well.

At some point during the current calendar year, wellhead shut-in pressure shall have been measured after a minimum of 24 hours shut-in/buildup time and shall be reported on the front side of this form under **OBSERVED SURFACE DATA**. Shut-in pressure shall thereafter be reported yearly in the same manner for so long as the gas well continues to meet the eligibility criterion or until the claim of eligibility for exemption **IS** denied.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than December 31 of the year for which it's intended to acquire exempt status for the subject well. The form must be signed and dated on the front side as though it was a verified report of annual test results.