

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

(See Instructions on Reverse Side)

Type Test:

- Open Flow
- Deliverability

Test Date:

API No. 15

025-10127-00-00

Company: Kaiser Francis Oil Company Lease: M Harper A Well Number: 158E

County: Clark Location: 19 Section: 34S TWP: 21W RNG (EW): 21W Acres Attributed: 5392

Field: Harper Reservoir: Morrow Gas Gathering Connection: DGP

Completion Date: 4/27/61 Plug Back Total Depth: 5531 Packer Set at: None

Casing Size	Weight	Internal Diameter	Set at	Perforations	To
4.5	9.5	4.090	5590	5382	5392
Tubing Size	Weight	Internal Diameter	Set at	Perforations	To
2.375	4.7	1.995	5348		

Type Completion (Describe): Single Type Fluid Production: \_\_\_\_\_ Pump Unit or Traveling Plunger?  Yes  No

Producing Thru (Annulus / Tubing): Tubing % Carbon Dioxide: \_\_\_\_\_ % Nitrogen: \_\_\_\_\_ Gas Gravity - G<sub>s</sub>: \_\_\_\_\_

Vertical Depth(H): 5387 Pressure Taps: Pipe (Meter Run) (Prover) Size: 4

Pressure Buildup: Shut-in 7/24/11 19 \_\_\_ at \_\_\_ (AM) (PM) Taken 7/25/11 19 \_\_\_ at \_\_\_ (AM) (PM)

Well on Line: Started \_\_\_\_\_ 19 \_\_\_ at \_\_\_ (AM) (PM) Taken \_\_\_\_\_ 19 \_\_\_ at \_\_\_ (AM) (PM)

### OBSERVED SURFACE DATA

Duration of Shut-in \_\_\_\_\_ Hours

Static / Dynamic Property	Orifice Size inches	Circle one: Meter or Prover Pressure psig	Pressure Differential in (h) Inches H <sub>2</sub> O	Flowing Temperature t	Well-Head Temperature t	Casing Wellhead-Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>e</sub> )		Tubing Wellhead-Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>e</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In								100		24	
Flow											

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>s</sub> ) (F <sub>e</sub> ) Mctd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_w \times H_w}$	Gravity Factor F <sub>g</sub>	Flowing Temperature Factor F <sub>t</sub>	Deviation Factor F <sub>sv</sub>	Metered Flow R (Mctd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>s</sub>

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>w</sub>)<sup>2</sup> = \_\_\_\_\_ : (P<sub>e</sub>)<sup>2</sup> = \_\_\_\_\_ : P<sub>e</sub> = \_\_\_\_\_ % (P<sub>e</sub> - 14.4) + 14.4 = \_\_\_\_\_ : (P<sub>w</sub>)<sup>2</sup> = 0.207

(P <sub>w</sub> ) <sup>2</sup> - (P <sub>e</sub> ) <sup>2</sup> or (P <sub>w</sub> ) <sup>2</sup> - (P <sub>e</sub> ) <sup>2</sup>	(P <sub>w</sub> ) <sup>2</sup> - (P <sub>e</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>w</sub> <sup>2</sup> - P <sub>e</sub> <sup>2</sup> 2. P <sub>w</sub> <sup>2</sup> - P <sub>e</sub> <sup>2</sup> divided by: P <sub>w</sub> <sup>2</sup> - P <sub>e</sub> <sup>2</sup>	LOG of formula 1, or 2, and divide by: $\frac{P_w^2 - P_e^2}{P_w^2 - P_e^2}$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability Equals R x Antilog Mctd

Open Flow Mctd @ 14.65 psia      Deliverability      Mctd @ 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 therein, and that said report is true and correct. Executed this the 24 day of October, 19 2011.

RECEIVED

Robert Major  
for Company

Witness (if any)

JAN 17 2012

For Commission

KCC WICHITA

Checked by

I declare under penalty or perjury under the laws of the state of Kansas that I am authorized to request exempt status under Rule K.A.R. 82-3-304 on behalf of the operator Kaiser Francis Oil Company and that the foregoing information and statements contained on this application form are true and correct to the best of my knowledge and belief based upon gas production records and records of equipment installation and/or of type completion or upon use of the gas well herein named.

I hereby request a permanent exemption from open flow testing for the Harper B-1 gas well on the grounds that said well:

(Check one)

- is a coalbed methane producer
- is cycled on plunger lift due to water
- is a source of natural gas for injection into an oil reservoir undergoing ER
- is on vacuum at the present time; KCC approval Docket No. \_\_\_\_\_
- is incapable of producing at a daily rate in excess of 150 mcf/D

Date: 10/24/11

Signature: Robert Major

Title: Production Records Manager

**Instructions:** All active gas wells must have at least an original G-2 form on file with the conservation division. If a gas well meets 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 obtain a testing exemption.

At some point during the succeeding calendar year, wellhead shut-in pressure shall be 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.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than thirty (30) days after the taking of the pressure reading. The form must be signed and dated on the front side as though it was a verified report of test results.