

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

Type Test:

(See Instructions on Reverse Side)

- Open Flow
- Deliverability

Test Date:  
5/09 to 5/10/13

API No. 15  
069-20200 20,320-0000

Company Falcon Exploration			Lease Fry		Well Number 1-23
County Gray	Location NESWNEW	Section 23	TWP 28S	RNG (E/W) 30W	Acres Attributed
Field Renegade SE		Reservoir Lansing	Gas Gathering Connection Oneok		
Completion Date 12/10/10		Plug Back Total Depth 4411	Packer Set at none		
Casing Size 5.5	Weight	Internal Diameter	Set at 4425	Perforations 4186	To 4271
Tubing Size 2.375	Weight	Internal Diameter	Set at 4156	Perforations	To
Type Completion (Describe) single		Type Fluid Production SW	Pump Unit or Traveling Plunger? Yes / No no		
Producing Thru (Annulus / Tubing) tubing		% Carbon Dioxide .0000	% Nitrogen 35.6901		Gas Gravity - G <sub>g</sub> .820
Vertical Depth(H)		Pressure Taps flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup:	Shut in 5/06	20 13	at 10:00 am	(AM) (PM) Taken 5/09	20 13
Well on Line:	Started 5/09	20 13	at 10:15 am	(AM) (PM) Taken 5/10	20 13
					at 10:00 am (AM) (PM)
					at 10:30 am (AM) (PM)

### OBSERVED SURFACE DATA

Duration of Shut-in 72 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter or Prover Pressure psig (Pm)	Pressure Differential in Inches H <sub>2</sub> O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>1</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>1</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						814	828.4	695	709.4	72	
Flow	.750	65	17.8	82		720	734.4	429	443.4	24.25	

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>b</sub> ) (F <sub>p</sub> ) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F <sub>g</sub>	Flowing Temperature Factor F <sub>tt</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
2.779	79.4	37.59	1.104	.9795	-----	113		.820

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = 686.246 : (P<sub>w</sub>)<sup>2</sup> = 539.343 : P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ : (P<sub>o</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>c</sub> <sup>2</sup> - P <sub>a</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>d</sub> <sup>2</sup> divided by: P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	LOG of formula 1. or 2. and divide by: $\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2}$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
686.039	146.903	4.670	.6693	.649	.4344	2.71	306

Open Flow **306** Mcfd @ 14.65 psia X .50 = Deliverability **153** 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 therein, and that said report is true and correct. Executed this the 29th day of May, 20 13.

*[Signature]*  
For Company

RECEIVED  
KANSAS CORPORATION COMMISSION

Witness (if any)

For Company

AUG 22 2013

CONSERVATION DIVISION  
WICHITA, KS