

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

Type Test:

(See Instructions on Reverse Side)

- Open Flow  
 Deliverability

Test Date: 04/01/2011 to 04/05/2011

API No. 15  
1517521036 -

Company C & R Petroleum Co.		Lease Sandifer		Well Number 2	
County Seward	Location NE SW	Section 30	TWP 34S	RNG (E/W) 34W	Acres Attributed 320
Field Kinney		Reservoir Morrow		Gas Gathering Connection Timberline Gathering	
Completion Date 10/03/1988		Plug Back Total Depth 6530'		Packer Set at None	
Casing Size 4 1/2	Weight 10.5#	Internal Diameter 4"	Set at 6346'	Perforations 6190'	To 6194'
Tubing Size 2 3/8	Weight 4.7#	Internal Diameter 2"	Set at 6308'	Perforations	To
Type Completion (Describe) Single Gas		Type Fluid Production Water		Pump Unit or Traveling Plunger? Yes / No Pumping Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide .28		% Nitrogen 4.94	
Vertical Depth(H) 6308'		Pressure Taps Flange		(Meter Run) (Prover) Size 2 X .375	
Pressure Buildup: Shut in 04/01 20 11 at 5:15 (AM) (PM) Taken 04/04 20 11 at 5:15 (AM) (PM)					
Well on Line: Started 04/04 20 11 at 5:20 (AM) (PM) Taken 04/05 20 11 at 5:20 (AM) (PM)					

### OBSERVED SURFACE DATA

Duration of Shut-in \_\_\_\_\_ 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>i</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						140	154.4			72	
Flow	.375	16	16	60		30	44.4			24	

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>s</sub> ) (F <sub>v</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>t</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
.686	30.4	22.05	1.195	1.00	1.0013	18		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = 23.84 : (P<sub>w</sub>)<sup>2</sup> = 1.97 : P<sub>a</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ : (P<sub>s</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>s</sub> ) <sup>2</sup> or (P <sub>d</sub> ) <sup>2</sup> - (P <sub>s</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>s</sub> <sup>2</sup> 2. P <sub>d</sub> <sup>2</sup> - P <sub>s</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: $\frac{P_c^2 - P_s^2}{P_c^2 - P_w^2}$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
23.6	21.87	1.079	.033	.75	.0248	1.059	19

Open Flow 19 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 therein, and that said report is true and correct. Executed this the 7th day of April, 20 11.

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

C & R Petroleum Co.  
For Company  
  
Checked by  
Curtis F. Covington, Owner

**RECEIVED**  
**APR 13 2011**  
**RCC WICHITA**