

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

Type Test:

- Open Flow  **SI**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
8/21/2012

API No. 15  
023-21251-0000

Company Rosewood Resources, Inc.		Lease Zweygartd		Well Number 43-24	
County Cheyenne	Location NESE	Section 24	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara	Gas Gathering Connection Branch Systems Inc.		
Completion Date 9/27/2010		Plug Back Total Depth 1507'	Packer Set at		
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1547'	Perforations 1320'	To 1350'
Tubing Size NONE	Weight	Internal Diameter	Set at	Perforations	To
Type Completion (Describe) Single (Conventional)		Type Fluid Production Dry Gas	Pump Unit or Traveling Plunger? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide	% Nitrogen	Gas Gravity - G <sub>g</sub> .6	
Vertical Depth(H) 1560'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup:	Shut in 8-20	20 12	at 5:30	(AM) (PM) Taken 8-21	20 12
					at 5:45 (AM) (PM)
Well on Line:	Started 8-21	20 12	at 5:45	(AM) (PM) Taken 8-22	20 12
					at 6:10 (AM) (PM)

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### OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter or Prover Pressure psig (P <sub>m</sub> )	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						151	165.4				
Flow						81	95.4			24	

### 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>t</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						25		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = \_\_\_\_\_ : (P<sub>w</sub>)<sup>2</sup> = \_\_\_\_\_ : 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 <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: $\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)

Open Flow 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 19 day of December, 20 12.

\_\_\_\_\_  
Witness (if any)

*Garnell Geever*  
For Company

\_\_\_\_\_  
For Commission

\_\_\_\_\_  
Checked by

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Form G-2  
(Rev. 7/03)

KCC WICHITA

I declare under penalty of 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 Rosewood Resources, Inc. and that the foregoing pressure information and statements contained on this application form are true and correct to the best of my knowledge and belief based upon available production summaries and lease records of equipment installation and/or upon type of completion or upon use being made of the gas well herein named.


I hereby request a one-year exemption from open flow testing for the Zweygardt 43-24 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 not capable of producing at a daily rate in excess of 250 mcf/D

I further agree to supply to the best of my ability any and all supporting documents deemed by Commission staff as necessary to corroborate this claim for exemption from testing.

Date: 12/19/12

Signature:   
Title: Production Assistant

**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.

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W2732

Zweygardt 43-24

St. Francis

St. Francis

Flow

August-12

FloBoss

DATE	Tubing Casing		STATIC MCF	SPM	CYCLE DOWN	HRS	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI						
8/1/2012		84	97	25				
8/2/2012		78	91	25				
8/3/2012		79	92	25				
8/4/2012		76	89	25				
8/5/2012		85	98	25				
8/6/2012		77	90	25				
8/7/2012		83	96	24				
8/8/2012		79	92	24				
8/9/2012		78	91	24				
8/10/2012		91	104	24				
8/11/2012		79	92	24		1.5		
8/12/2012		78	91	25				
8/13/2012		76	89	24				
8/14/2012		77	90	24				
8/15/2012		86	99	24				
8/16/2012		76	89	24				
8/17/2012		77	90	24				
8/18/2012		80	93	24				
8/19/2012		78	91	24				
8/20/2012		75	88	24				
8/21/2012		151	88	0		24		si for state test cp-77 reopened cp-151
8/22/2012		81	94	38				
8/23/2012		82	95	27				
8/24/2012		83	96	26				
8/25/2012		82	95	26				
8/26/2012		79	92	25				
8/27/2012		78	91	25				
8/28/2012		77	90	25				
8/29/2012		79	92	24				
8/30/2012		78	91	24				
8/31/2012		78	91	24				

Total

751

0

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Zweygardt 43-24

St. Francis

St. Francis

Flow

September-12

FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
9/1/2012	78	91	24		
9/2/2012	80	93	24		
9/3/2012	78	91	24		
9/4/2012	77	90	24	1	
9/5/2012	90	103	24		
9/6/2012	90	103	24		
9/7/2012	149	162	7	19	
9/8/2012	156	169	0	24	
9/9/2012	158	171	0	24	
9/10/2012	160	173	0	24	
9/11/2012	161	174	0	24	
9/12/2012	162	175	0	24	
9/13/2012	138	151	24	10	
9/14/2012	132	145	40		
9/15/2012	119	132	38		
9/16/2012	108	121	32		
9/17/2012	100	113	29		
9/18/2012	85	98	29		
9/19/2012	94	107	27		
9/20/2012	78	91	27		
9/21/2012	87	90	26		
9/22/2012	76	89	26		
9/23/2012	77	90	27		
9/24/2012	81	94	25		
9/25/2012	81	94	25		
9/26/2012	87	100	25		
9/27/2012	80	93	25		
9/28/2012	80	93	25		
9/29/2012	80	93	25		
9/30/2012	80	93	25		
10/1/2012					

Total

651

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W2732

Zweygardt 43-24

St. Francis

St. Francis

Flow

October-12

FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
10/1/2012	80	93		25	
10/2/2012	80	93		25	
10/3/2012	80	93		25	
10/4/2012	78	91		25	
10/5/2012	78	91		25	
10/6/2012	78	91		25	
10/7/2012	68	81		25	
10/8/2012	78	91		25	
10/9/2012	78	91		25	
10/10/2012	80	93		25	
10/11/2012	79	92		25	
10/12/2012	78	91		25	
10/13/2012	79	92		25	
10/14/2012	81	94		24	
10/15/2012	79	92		24	
10/16/2012	91	104		24	1
10/17/2012	80	93		24	
10/18/2012	77	90		24	
10/19/2012	77	90		24	
10/20/2012	79	92		24	
10/21/2012	77	90		23	
10/22/2012	79	92		24	
10/23/2012	77	90		24	
10/24/2012	76	89		24	
10/25/2012	74	87		24	
10/26/2012	77	90		24	
10/27/2012	76	89		24	
10/28/2012	75	88		24	
10/29/2012	96	109		24	2
10/30/2012	88	101		23	
10/31/2012	76	89		24	

Total

755