

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

Type Test:

(See Instructions on Reverse Side)

Open Flow **BSI**  
Deliverability

Test Date:  
5/9/2011

API No. 15  
023-21256-00 - ∞

Company Rosewood Resources, Inc.		Lease Zweygardt		Well Number 14-19	
County Cheyenne	Location SWSW	Section 19	TWP 3S	RNG (E/W) 40W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 9/16/2010		Plug Back Total Depth 1500'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1539'	Perforations 1314'	To 1344'
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="radio"/> No <input checked="" type="radio"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1550'		Pressure Taps Flange		Gas Gravity - G <sub>g</sub> .6 (Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 5-8		20 11 at 5:40		(AM) (PM) Taken 5-9	
Well on Line: Started 5-9		20 11 at 5:55		(AM) (PM) Taken 5-10	
		20 11 at 5:55		(AM) (PM) Taken 5-10	

### OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter 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>1</sub> ) or (P <sub>2</sub> ))		Tubing Wellhead Pressure (P <sub>w</sub> or (P <sub>1</sub> ) or (P <sub>2</sub> ))		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-in						209	223.4				
Flow						198	212.4			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>
						85		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

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

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>g</sub> ) <sup>2</sup>	(P <sub>w</sub> ) <sup>2</sup> - (P <sub>g</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>g</sub> <sup>2</sup> divided by: P <sub>w</sub> <sup>2</sup> - P <sub>g</sub> <sup>2</sup>	LOG of formula 1. or 2. and divide by: $P_c^2 - P_w^2$	Backpressure Curve Slope = "n" 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 28 day of December, 20 11

Witness (if any)

For Commission

*Dannell Sewer*  
For Company

Checked by

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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 14-19 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: 12/28/11

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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W2741  
 Zweygardt 14-19  
 St. Francis  
 St. Francis  
 Flow  
 May-11  
 FloBoss

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
5/1/2011		215	109	85				
5/2/2011		215	109	85				
5/3/2011		209	109	86				
5/4/2011		209	109	86				
5/5/2011		209	109	88				
5/6/2011		211	109	88				
5/7/2011		212	109	87				
5/8/2011		212	146	87				
5/9/2011		209	140	0		24		Compressor Down
5/10/2011		209	112	10				
5/11/2011		210	110	59				
5/12/2011		210	110	83				
5/13/2011		210	109	87				
5/14/2011		210	109	87				
5/15/2011		210	109	89				
5/16/2011		210	109	89				
5/17/2011		209	108	89				
5/18/2011		210	109	89				
5/19/2011		210	96	90				
5/20/2011		209	95	90				
5/21/2011		209	108	89				
5/22/2011		209	108	83				
5/23/2011		209	109	83				
5/24/2011		206	109	88				
5/25/2011		202	108	88				
5/26/2011		198	109	90				
5/27/2011		199	108	89				
5/28/2011		198	108	84				
5/29/2011		198	109	87				
5/30/2011		198	108	85				
5/31/2011		198	108	85				

Total

2505

0

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W2741  
 Zweygardt 14-19  
 St. Francis  
 St. Francis  
 Flow  
 June-11  
 FloBoss

DATE	Tubing Casing		STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI						
6/1/2011		198	108	76				
6/2/2011		198	109	73				
6/3/2011		198	108	84				
6/4/2011		198	108	84				
6/5/2011		198	108	85				
6/6/2011		197	107	84				
6/7/2011		197	108	84				
6/8/2011		197	108	85				
6/9/2011		197	108	84				
6/10/2011		196	108	85				
6/11/2011		195	108	84				
6/12/2011		195	108	84				
6/13/2011		195	108	84				
6/14/2011		195	107	83				
6/15/2011		194	106	83				
6/16/2011		194	108	75				
6/17/2011		194	107	80				
6/18/2011		194	106	79				
6/19/2011		194	106	78				
6/20/2011		194	105	77				
6/21/2011		194	105	77				
6/22/2011		194	105	75				
6/23/2011		194	109	37		1		
6/24/2011		194	108	75				
6/25/2011		194	106	80				
6/26/2011		194	104	77				
6/27/2011		194	103	74				
6/28/2011		194	103	73				
6/29/2011		194	103	72				
6/30/2011		194	103	72				
7/1/2011								

Total

2343

0

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W2741  
 Zwegardt 14-19  
 St. Francis  
 St. Francis  
 Flow  
 July-11  
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DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2011		89	102	71				
7/2/2011		69	82	71				
7/3/2011		69	82	70				
7/4/2011		70	83	70				
7/5/2011		88	101	69				
7/6/2011		87	100	69				
7/7/2011		88	101	69				
7/8/2011		88	101	68				
7/9/2011		87	100	68				
7/10/2011		87	100	67				
7/11/2011		86	99	67				
7/12/2011		85	98	67				
7/13/2011		79	92	67			1	
7/14/2011		85	98	64				
7/15/2011		68	81	65				
7/16/2011		69	82	65				
7/17/2011		73	86	65				
7/18/2011		94	107	65				
7/19/2011		87	100	62			2	
7/20/2011		85	98	65				
7/21/2011		93	106	58				
7/22/2011		83	96	68				
7/23/2011		83	96	64				
7/24/2011		82	95	63				
7/25/2011		83	96	63				
7/26/2011		82	95	63				
7/27/2011		82	95	63				
7/28/2011		83	96	63				
7/29/2011		96	109	56				
7/30/2011		70	83	67				
7/31/2011		70	83	62				

Total

2034

0

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