

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

Type Test:

- Open Flow **AST**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
7/15/2009

API No. 15  
023-21110-00 **00**

Company Rosewood Resources, Inc.		Lease Zweygardt		Well Number 34-24	
County Cheyenne	Location SWSE	Section 24	TWP 3S	Range (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/29/2008		Plug Back Total Depth 1529'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1569'	Perforations 1344'	To 1374'
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 / <b>No</b>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) <b>1374'</b>		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in <u>7-14</u> 20 <u>09</u> at <u>10:05</u> ( <b>AM</b> ) (PM) Taken <u>7-15</u> 20 <u>09</u> at <u>10:20</u> ( <b>AM</b> ) (PM)		Well on Line: Started <u>7-15</u> 20 <u>09</u> at <u>10:20</u> ( <b>AM</b> ) (PM) Taken <u>7-16</u> 20 <u>09</u> at <u>11:05</u> ( <b>AM</b> ) (PM)			

### OBSERVED SURFACE DATA

Duration of Shut-in 24 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						200	214.4				
Flow						210	224.4			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>
						19		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(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>w</sub> ) <sup>2</sup> = _____	P <sub>d</sub> = _____ %	(P <sub>c</sub> - 14.4) + 14.4 = _____				
(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)

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 November 2009.

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

*Tom W. Ruff*  
\_\_\_\_\_  
For Company  
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\_\_\_\_\_  
Checked by

**NOV 30 2009**

**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.

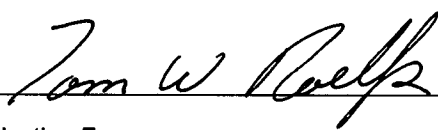
I hereby request a one-year exemption from open flow testing for the Zweygardt 34-24 gas well on the grounds that said well:

(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: 11/19/09

Signature:   
Title: Production Foreman

**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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KCC WICHITA

W2603  
 Zwegardt 34-24  
 St. Francis  
 St. Francis  
 None  
 July-09  
 FloBoss

DATE	Casing PSI	STATIC	MCF	SPM	HRS CYCLEDOWN	Water BLS	REMARKS (Maximum length 110 characters)
7/1/2009		142	20			0	
7/2/2009		142	20			0	
7/3/2009		142	20			0	
7/4/2009		142	20			0	
7/5/2009		142	20			0	
7/6/2009		141	20			0	
7/7/2009		141	20			0	
7/8/2009		142	15			6	
7/9/2009		142	5			0	
7/10/2009		141	21			0	
7/11/2009		142	21			0	
7/12/2009		141	21			0	
7/13/2009		141	21			0	
7/14/2009		142	20			0	
7/15/2009	200	142	20			0	shut in at well for test
7/16/2009	210	140	6			0	open
7/17/2009		145	16			0	
7/18/2009		144	21			0	
7/19/2009		144	21			0	
7/20/2009		143	15			7	
7/21/2009		143	20			0	
7/22/2009		143	20			0	
7/23/2009	200	142	21			0	
7/24/2009		142	21			0	
7/25/2009		142	21			0	
7/26/2009		142	21			0	
7/27/2009		142	18			4	
7/28/2009		142	21			0	
7/29/2009	200	142	21			0	
7/30/2009		141	21			0	
7/31/2009		141	21			0	

Total 589

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W2603

Zweygardt 34-24

St. Francis

St. Francis

None

August-09

FloBoss

DATE	Casing PSI	STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2009		139		21		0	
8/2/2009		138		21		0	
8/3/2009		137		21		0	
8/4/2009		132		21		0	
8/5/2009		131		19		0	
8/6/2009		139		19		0	
8/7/2009		130		19		0	
8/8/2009		128		19		0	
8/9/2009		127		19		0	
8/10/2009		127		19		0	
8/11/2009		126		19		0	
8/12/2009		126		19		0	
8/13/2009		125		19		0	
8/14/2009		125		19		0	
8/15/2009		125		19		0	
8/16/2009		125		19		0	
8/17/2009		143		13		0	
8/18/2009		143		13		0	
8/19/2009		143		13		0	
8/20/2009		142		17		0	
8/21/2009		140		21		0	
8/22/2009		140		21		0	
8/23/2009		141		21		0	
8/24/2009		143		19		0	
8/25/2009		140		17		0	
8/26/2009		120		18		0	
8/27/2009	110	140		18		0	
8/28/2009		140		18		0	
8/29/2009		118		18		0	
8/30/2009		130		18		0	
8/31/2009		118		18		0	

Total

575

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W2603  
 Zweygardt 34-24  
 St. Francis  
 St. Francis  
 None  
 September-09  
 FloBoss

DATE	Casing PSI	STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs
9/1/2009		116		18		0
9/2/2009		116		18		0
9/3/2009		116		18		0
9/4/2009		122		15		6
9/5/2009		115		19		0
9/6/2009		115		18		0
9/7/2009		113		18		0
9/8/2009	110	113		18		0
9/9/2009		114		118		0
9/10/2009		113		18		0
9/11/2009		112		18		0
9/12/2009		112		17		0
9/13/2009		117		17		0
9/14/2009		120		17		0
9/15/2009	110	111		17		0
9/16/2009		111		17		0
9/17/2009		111		17		0
9/18/2009		111		17		0
9/19/2009		111		17		0
9/20/2009		111		17		0
9/21/2009		111		17		0
9/22/2009		113		16		0
9/23/2009		112		15		0
9/24/2009		112		17		0
9/25/2009		121		12		0
9/26/2009		143		17		0
9/27/2009		135		19		0
9/28/2009		124		17		0
9/29/2009		116		17		0
9/30/2009		142		11		8
10/1/2009						0

Total

607

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