

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

Open Flow **AST**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
9/29/2011

API No. 15  
023-20627-00-8

Company Rosewood Resources, Inc.		Lease Isernhagen			Well Number 21-26
County Cheyenne	Location NENW/4	Section 26	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/22/2005		Plug Back Total Depth 1513'		Packer Set at	
Casing Size 2 7/8"	Weight 6.5#	Internal Diameter 2.441	Set at 1513'	Perforations 1381'	To 1413'
Tubing Size NONE	Weight	Internal Diameter	Set at	Perforations	To

Type Completion (Describe) Single (Conventional)	Type Fluid Production Dry Gas	Pump Unit or Travelling Plunger? flowing	Yes <input checked="" type="checkbox"/> No
Producing Thru (Annulus / Tubing) Annulus	% Carbon Dioxide	% Nitrogen	Gas Gravity - G <sub>g</sub> .6
Vertical Depth(H) 1413'	Pressure Taps Flange	(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in	9-28	20 11 at 11:20	(AM) (PM) Taken 9-29
Well on Line: Started	9-29	20 11 at 11:30	(AM) (PM) Taken 9-30

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						102	116.4				
Flow						57	71.4			24	0

Plate Coefficient (F <sub>o</sub> ) (F <sub>o</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>
						13		

(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>o</sub> ) <sup>2</sup> = 0.207	(P <sub>g</sub> ) <sup>2</sup> =		
(P <sub>c</sub> ) <sup>2</sup> - (P <sub>o</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>g</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>o</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>g</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: $\frac{P_c^2 - P_o^2}{P_c^2 - P_w^2}$	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

*Samuel Oliver*  
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 Isernhagen 21-26 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 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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Isernhagen 21-26

St. Francis

St. Francis

None

September-11

DATE	Casing		MCF	HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC		DOWN		
9/1/2011	60	73		18	0	
9/2/2011	60	74		17	0	
9/3/2011	59	73		18	0	
9/4/2011	59	73		18	0	
9/5/2011	59	73		18	0	
9/6/2011	59	73		18	0	
9/7/2011	60	72		18	0	
9/8/2011	60	74		15	0	
9/9/2011	59	73		16	0	
9/10/2011	60	73		16	0	
9/11/2011	60	73		15	0	
9/12/2011	60	73		14	0	
9/13/2011	47	73		14	0	
9/14/2011	59	72		14	0	
9/15/2011	59	72		14	0	
9/16/2011	59	72		15	0	
9/17/2011	59	72		16	0	
9/18/2011	59	72		16	0	
9/19/2011	54	72		17	0	
9/20/2011	59	72		16	0	
9/21/2011	50	72		17	0	
9/22/2011	58	72		16	0	
9/23/2011	51	71		17	0	
9/24/2011	59	71		17	0	
9/25/2011	59	72		16	0	
9/26/2011	59	72		16	0	
9/27/2011	55	72		18	0	
9/28/2011	61	68		19	0	
9/29/2011	102	68		0	24 si for state test	
9/30/2011	56	69		14	0	
10/1/2011	0	0		0	0	

Total

473

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Isernhagen 21-26

St. Francis

St. Francis

None

October-11

DATE	Casing			HRS DOWN	REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF		
10/1/2011	58	71	13	0	
10/2/2011	52	73	12	0	
10/3/2011	60	73	12	0	
10/4/2011	59	73	12	0	
10/5/2011	60	73	12	0	
10/6/2011	57	71	14	0	
10/7/2011	58	74	11	0	
10/8/2011	60	73	12	0	
10/9/2011	60	73	12	0	
10/10/2011	50	73	12	0	
10/11/2011	58	77	10	0	
10/12/2011	45	72	12	0	
10/13/2011	55	69	14	0	
10/14/2011	55	70	13	0	
10/15/2011	56	70	14	0	
10/16/2011	38	71	14	0	
10/17/2011	57	71	13	0	
10/18/2011	57	71	13	0	
10/19/2011	57	74	11	0	
10/20/2011	58	73	12	0	
10/21/2011	58	71	13	0	
10/22/2011	56	72	12	0	
10/23/2011	56	72	12	0	
10/24/2011	51	72	13	0	
10/25/2011	50	72	13	0	
10/26/2011	50	72	13	0	
10/27/2011	57	71	13	0	
10/28/2011	57	71	13	0	
10/29/2011	58	71	13	0	
10/30/2011	53	71	13	0	
10/31/2011	51	71	13	0	

Total

389

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Isernhagen 21-26

St. Francis

St. Francis

None

November-11

DATE	Casing		MCF	HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC		DOWN		
11/1/2011	58	71	13	0		
11/2/2011	57	70	13	0		
11/3/2011	45	70	13	0		
11/4/2011	45	70	13	0		
11/5/2011	45	70	13	0		
11/6/2011	57	70	13	0		
11/7/2011	63	71	13	0		
11/8/2011	57	73	11	0		
11/9/2011	43	70	13	0		
11/10/2011	57	70	14	0		
11/11/2011	57	70	13	0		
11/12/2011	50	70	14	0		
11/13/2011	57	70	14	0		
11/14/2011	57	70	13	0		
11/15/2011	54	69	14	0		
11/16/2011	55	68	14	0		
11/17/2011	55	69	14	0		
11/18/2011	56	69	14	0		
11/19/2011	53	69	14	0		
11/20/2011	53	69	14	0		
11/21/2011	56	68	14	0		
11/22/2011	57	68	14	0		
11/23/2011	58	69	14	0		
11/24/2011	58	70	14	0		
11/25/2011	57	69	14	0		
11/26/2011	57	69	14	0		
11/27/2011	57	69	14	0		
11/28/2011	52	69	14	0		
11/29/2011	57	69	14	0		
11/30/2011	56	70	13	0		
12/1/2011	0	0	0	0		

Total

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