

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

(See Instructions on Reverse Side)

Type Test:

- Open Flow **ASI**  
 Deliverability

Test Date:  
8/8/2008

API No. 15  
15-181-20443-00-00

Company Rosewood Resources		Lease Leonard		Well Number 23-29	
County Sherman	Location NESW	Section 29	TWP 7S	RNG (E/W) 39W	Acres Attributed 80
Field Goodland		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/23/2006		Plug Back Total Depth 1268'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1267.81'	Perforations 1036'	To 1074'
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) 1315'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 8-8 20 08 at 8:00 <b>(AM)</b> (PM)		Taken 8-9 20 08 at 9:12 <b>(AM)</b> (PM)			
Well on Line: Started 8-9 20 08 at 9:12 <b>(AM)</b> (PM)		Taken 8-10 20 08 at 9:50 <b>(AM)</b> (PM)			

### OBSERVED SURFACE DATA

Duration of Shut-in \_\_\_\_\_ 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>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>1</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						39	53.4				
Flow						29	43.4			24	0

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>p</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>tt</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						19		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = \_\_\_\_\_ : (P<sub>w</sub>)<sup>2</sup> = \_\_\_\_\_ : P<sub>0</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ : (P<sub>a</sub>)<sup>2</sup> = 0.207  
(P<sub>0</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>0</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>0</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 (Mcf/d)

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 18 day of November 20 08.

RECEIVED  
KANSAS CORPORATION COMMISSION

*Tom W Roelf*  
For Company

Witness (if any)

For Commission

JAN 29 2009

Checked by

CONSERVATION DIVISION  
WICHITA, KS

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.

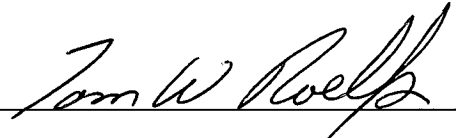
I hereby request a one-year exemption from open flow testing for the Leonard 23-29 gas well on the grounds that said well:

(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: 11/18/08

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.

KANSAS CORPORATION COMMISSION

JAN 29 2009

CONSERVATION DIVISION  
WICHITA, KS

W2324  
 Leonard 23-29  
 North Goodland  
 Goodland  
 None  
 August-08

DATE	Casing			HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF	DOWN		
8/1/2008	29	42	19	2		
8/2/2008	29	42	19	0		
8/3/2008	29	42	19	0		
8/4/2008	29	42	19	0		
8/5/2008	29	42	19	0		
8/6/2008	29	42	19	0		
8/7/2008	35	48	6	5.5		
8/8/2008	39	52	0	5		
8/9/2008	39	52	0	24		
8/10/2008	39	52	0	0		
8/11/2008	34	47	16	0		
8/12/2008	39	52	4	0		
8/13/2008	34	47	18	0		
8/14/2008	34	47	18	0		
8/15/2008	34	47	18	0		
8/16/2008	34	47	18	0		
8/17/2008	34	47	17	0		
8/18/2008	33	46	14	0		
8/19/2008	33	46	18	0		
8/20/2008	31	44	20	0		
8/21/2008	31	44	10	7		
8/22/2008	31	44	19	0		
8/23/2008	31	44	20	0		
8/24/2008	31	44	20	0		
8/25/2008	30	43	20	0		
8/26/2008	30	43	20	0		
8/27/2008	30	43	19	0		
8/28/2008	30	43	19	0		
8/29/2008	30	43	19	0		
8/30/2008	30	43	19	0		
8/31/2008	30	43	19	0		

Total 485

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 WICHITA, KS

W2324  
 Leonard 23-29  
 North Goodland  
 Goodland  
 None  
 September-08

DATE	Casing		MCF	HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC		DOWN		
9/1/2008	30	43		19	0	
9/2/2008	30	43		19	0	
9/3/2008	30	43		19	0	
9/4/2008	32	45		8	0	
9/5/2008	32	45		8	0	
9/6/2008	30	43		20	0	
9/7/2008	30	43		20	0	
9/8/2008	30	43		19	0	
9/9/2008	30	43		19	0	
9/10/2008	30	43		19	8	
9/11/2008	31	44		13	0	
9/12/2008	30	43		19	0	
9/13/2008	30	43		19	0	
9/14/2008	30	43		19	0	
9/15/2008	30	43		19	0	
9/16/2008	30	43		19	0	
9/17/2008	30	43		19	0	
9/18/2008	29	42		19	0	
9/19/2008	29	42		19	0	
9/20/2008	29	42		19	0	
9/21/2008	29	42		19	0	
9/22/2008	29	42		19	0	
9/23/2008	29	42		19	0	
9/24/2008	29	42		19	0	
9/25/2008	29	42		20	0	
9/26/2008	29	42		20	0	
9/27/2008	29	42		19	0	
9/28/2008	29	42		19	0	
9/29/2008	29	42		19	0	
9/30/2008	29	42		19	0	
10/1/2008					0	

Total

546

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 KANSAS CONSERVATION COMMISSION  
 JAN 29 2009  
 CONSERVATION DIVISION  
 WICHITA, KS

W2324  
Leonard 23-29  
North Goodland  
Goodland  
None  
October-08

DATE	Casing			HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF	DOWN		
10/1/2008	29	42	19	0		
10/2/2008	29	42	19	0		
10/3/2008	29	42	19	0		
10/4/2008	29	42	19	0		
10/5/2008	34	47	8	16		
10/6/2008	29	42	15	5		
10/7/2008	29	42	18	0		
10/8/2008	30	43	19	0		
10/9/2008	29	42	18	0		
10/10/2008	29	42	18	0		
10/11/2008	29	42	18	0		
10/12/2008	29	42	18	0		
10/13/2008	29	42	18	9.5		
10/14/2008	29	42	13	3		
10/15/2008	29	42	18	0		
10/16/2008	29	42	18	0		
10/17/2008	30	43	19	0		
10/18/2008	30	43	19	0		
10/19/2008	30	43	19	0		
10/20/2008	30	43	19	0		
10/21/2008	30	43	19	0		
10/22/2008	30	43	19	0		
10/23/2008	30	43	19	0		
10/24/2008	29	42	19	0		
10/25/2008	29	42	19	0		
10/26/2008	29	42	19	0		
10/27/2008	29	42	19	0		
10/28/2008	29	42	19	0		
10/29/2008	29	42	19	0		
10/30/2008	29	42	19	0		
10/31/2008	29	42	19	0		

Total

560

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WICHITA, KS