

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

(See Instructions on Reverse Side)

Type Test:

Open Flow **AST**  
 Deliverability

Test Date:  
5/9/2011

API No. 15  
023-20562-00 - 00

Company Rosewood Resources, Inc.		Lease Zimelman		Well Number 2-24	
County Cheyenne	Location SWSW	Section 24	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 9-10-2004		Plug Back Total Depth 1536'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1536'	Perforations 1332'	To 1370'
Tubing Size <b>NONE 2 3/8"</b>	Weight	Internal Diameter	Set at <b>1392'</b>	Perforations	To
Type Completion (Describe) Single (Conventional)		Type Fluid Production Dry Gas		Pump Unit or Traveling Plunger? <input checked="" type="radio"/> No Pumping Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1370'		Pressure Taps Flange		Gas Gravity - G <sub>g</sub> .6	
Pressure Buildup: Shut in <u>5-8</u> 20 <u>11</u> at <u>9:05</u> <input checked="" type="radio"/> (AM) (PM) Taken <u>5-9</u> 20 <u>11</u> at <u>9:20</u> <input checked="" type="radio"/> (AM) (PM)		Well on Line: Started <u>5-9</u> 20 <u>11</u> at <u>9:20</u> <input checked="" type="radio"/> (AM) (PM) Taken <u>5-10</u> 20 <u>11</u> at <u>10:05</u> <input checked="" type="radio"/> (AM) (PM)			

### 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>e</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>e</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						139	153.4				
Flow						57	71.4			24	0

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>s</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 (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						15		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

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

(P <sub>e</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup> or (P <sub>e</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>w</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>e</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> 2. P <sub>e</sub> <sup>2</sup> - P <sub>d</sub> <sup>2</sup> divided by: P <sub>e</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	LOG of formula 1. or 2. and divide by: $\frac{P_e^2 - P_w^2}{P_e^2 - P_w^2}$	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 28 day of December, 20 11.

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

\_\_\_\_\_  
For Company

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

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

APR 24 2012

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 Zimbelman 2-24 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: 12/28/11

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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Zimbelman 02-24

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None

May-11

DATE	Tubing Casing				HRS	Water	REMARKS (Maximum length 110 characters)	
	PSI	PSI	STATIC MCF	SPM CYCLE DOWN				
5/1/2011		65	77	15	6	0	0	0 needs wo pu off
5/2/2011		64	77	15	6	0	0	0
5/3/2011		64	77	15	6	0	0	0
5/4/2011		62	76	15	6	0	0	0 needs wo pu off
5/5/2011		61	75	15	6	0	0	0
5/6/2011		61	74	15	6	0	0	0
5/7/2011		61	74	15	6	0	0	0 needs wo pu off
5/8/2011		91	74	15	6	0	0	0
5/9/2011		139	121	0	6	0	24	0 Compressor Down
5/10/2011		91	143	6	6	0	0	0 needs wo pu off
5/11/2011		65	93	15	6	0	0	0
5/12/2011		61	78	15	6	0	0	0
5/13/2011		60	74	14	6	0	0	0 needs wo pu off
5/14/2011		58	73	14	6	0	0	0
5/15/2011		57	71	12	6	0	0	0
5/16/2011		57	70	0	6	0	0	0 needs wo pu off
5/17/2011		56	70	14	6	0	0	0
5/18/2011		57	71	14	6	0	0	0
5/19/2011		56	77	15	6	0	0	0 needs wo pu off
5/20/2011		57	77	15	6	0	0	0
5/21/2011		57	76	15	6	0	0	0
5/22/2011		67	75	15	6	0	0	0 needs wo pu off
5/23/2011		58	77	15	6	0	0	0 replaced batt
5/24/2011		57	70	12	6	0	0	0
5/25/2011		57	70	14	6	0	0	0 needs wo pu off
5/26/2011		56	69	14	6	0	0	0
5/27/2011		58	70	14	6	0	0	0
5/28/2011		59	74	14	6	0	0	0 needs wo pu off
5/29/2011		59	72	14	6	0	0	0
5/30/2011		60	72	14	6	0	0	0
5/31/2011		60	73	14	6	0	0	0 needs wo pu off

Total

409

0

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None

June-11

DATE	Tubing Casing					HRS CYCLEDOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI	STATIC	MCF	SPM			
6/1/2011		83	81	14	6	0	0	0 needs wo pu off
6/2/2011		61	82	14	6	0	0	0
6/3/2011		60	74	14	6	0	0	0
6/4/2011		59	73	14	6	0	0	0 needs wo pu off
6/5/2011		61	73	14	6	0	0	0
6/6/2011		61	74	14	6	0	0	0
6/7/2011		59	74	14	6	0	0	0 needs wo pu off
6/8/2011		60	72	14	6	0	0	0
6/9/2011		59	74	14	6	0	0	0
6/10/2011		61	73	14	6	0	0	0 needs wo pu off
6/11/2011		61	74	14	6	0	0	0
6/12/2011		61	74	14	6	0	0	0
6/13/2011		61	74	14	6	0	0	0 needs wo pu off
6/14/2011		61	74	14	6	0	0	0
6/15/2011		60	73	14	6	0	0	0
6/16/2011		66	81	14	6	0	0	0 needs wo pu off
6/17/2011		64	77	14	6	0	0	0
6/18/2011		63	76	14	6	0	0	0
6/19/2011		64	76	14	6	0	0	0 needs wo pu off
6/20/2011		63	77	14	6	0	0	0
6/21/2011		63	76	14	6	0	0	0
6/22/2011		64	77	14	6	0	0	0 needs wo pu off
6/23/2011		79	100	14	6	0	1	0
6/24/2011		64	82	14	6	0	0	0
6/25/2011		63	76	14	6	0	0	0 needs wo pu off
6/26/2011		63	76	14	6	0	0	0
6/27/2011		63	76	14	6	0	0	0
6/28/2011		63	75	14	6	0	0	0 needs wo pu off
6/29/2011		64	76	14	6	0	0	0
6/30/2011		64	76	14	6	0	0	0
7/1/2011		0	0	0	0	0	0	0

Total

420

0

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None

July-11

DATE	Tubing Casing		STATIC MCF	SPM	CYCLE DOWN	HRS	Water	REMARKS (Maximum length 110 characters)
	PSI	PSI					BBLs	
7/1/2011		64	76	14	6	0	0	0 pu off needs wo
7/2/2011		64	76	14	6	0	0	0
7/3/2011		64	76	14	6	0	0	0
7/4/2011		64	76	14	6	0	0	0 pu off needs wo
7/5/2011		64	76	14	6	0	0	0
7/6/2011		63	76	14	6	0	0	0
7/7/2011		63	76	13	6	0	0	0 pu off needs wo
7/8/2011		63	76	14	6	0	0	0
7/9/2011		63	76	13	6	0	0	0
7/10/2011		63	76	13	6	0	0	0 pu off needs wo
7/11/2011		63	76	14	6	0	0	0
7/12/2011		62	75	13	6	0	0	0
7/13/2011		53	73	13	6	0	1	0 pu off needs wo
7/14/2011		63	75	13	6	0	0	0
7/15/2011		63	75	13	6	0	0	0
7/16/2011		63	76	13	6	0	0	0 pu off needs wo
7/17/2011		67	80	14	6	0	0	0
7/18/2011		92	77	13	6	0	0	0
7/19/2011		65	84	14	6	0	2	0 pu off needs wo
7/20/2011		63	77	13	6	0	0	0
7/21/2011		75	86	13	6	0	0	0
7/22/2011		59	79	14	6	0	0	0 pu off needs wo
7/23/2011		63	73	13	6	0	0	0
7/24/2011		63	73	13	6	0	0	0
7/25/2011		61	73	13	6	0	0	0 pu off needs wo
7/26/2011		60	73	13	6	0	0	0
7/27/2011		60	73	13	6	0	0	0
7/28/2011		61	73	13	6	0	0	0 pu off needs wo
7/29/2011		71	84	13	6	0	0	0
7/30/2011		62	81	13	6	0	0	0
7/31/2011		62	76	13	6	0	0	0 pu off needs wo

Total

414

0

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