

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

(See Instructions on Reverse Side)

Type Test:

Open Flow  **OSI**  
 Deliverability

Test Date:  
7/13/2011

API No. 15  
023-20589-00 - 00

Company Rosewood Resources, Inc.		Lease Zimelman		Well Number 3-24	
County Cheyenne	Location SWNW	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 1502'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1507'	Perforations 1292'	To 1330'
Tubing Size <del>NONE</del> 2 3/8"	Weight	Internal Diameter	Set at 1350'	Perforations	To
Type Completion (Describe) Single (Conventional)		Type Fluid Production Dry Gas		Pump Unit or Travelling Plunger? <input checked="" type="radio"/> Yes / No Pumping Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1330'		Pressure Taps Flange		Gas Gravity - G <sub>g</sub> .6	
Pressure Buildup: Shut in 7-12 20 11 at 9:15 (AM) (PM) Taken 7-13 20 11 at 9:30 (AM) (PM)		Well on Line: Started 7-13 20 11 at 9:30 (AM) (PM) Taken 7-14 20 11 at 10:15 (AM) (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						31	45.4				
Flow						69	83.4			24	0

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>v</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>
						44		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>o</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>o</sub>)<sup>2</sup> = 0.207 : (P<sub>o</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>o</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup> or (P <sub>o</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>o</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>o</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> 2. P <sub>o</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: $\frac{P_o^2 - P_w^2}{P_c^2 - P_w^2}$	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 28 day of December, 2011.

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

  
For Company

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

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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 3-24 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,03-24

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None

July-11

DATE	Tubing Casing		STATIC	MCF	SPM	CYCLE	HRS	DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI								
7/1/2011		70	82	47	6.5	14	0	18		
7/2/2011		70	82	47	6.5	14	0	17		
7/3/2011		70	82	47	6.5	14	0	18		
7/4/2011		71	82	47	6.5	14	0	16		
7/5/2011		70	82	47	6.5	14	0	19		
7/6/2011		71	82	46	6.5	14	0	20	5 min bt greased	
7/7/2011		70	82	47	6.5	14	0	21		
7/8/2011		69	82	46	6.5	14	0	20		
7/9/2011		69	82	46	6.5	14	0	19		
7/10/2011		69	82	46	6.5	14	0	20		
7/11/2011		68	82	46	6.5	12	0	11	8 min bt chg timer to 12 hrs on	
7/12/2011		68	81	46	6.5	6	0	6	squeezed well	
7/13/2011		31	81	0	6.5	6	24	5	reopened well	
7/14/2011		69	86	51	6.5	12	0	7		
7/15/2011		69	82	49	6.5	12	0	20		
7/16/2011		69	82	48	6.5	12	0	18		
7/17/2011		73	86	46	6.5	12	0	17		
7/18/2011		96	83	47	6.5	6	0	5	pu off, high field pressure	
7/19/2011		70	89	44	6.5	6	2	5	restart pu	
7/20/2011		69	82	44	6.5	12	0	17		
7/21/2011		79	92	42	6.5	6	0	5	pu off, high field pressure	
7/22/2011		64	83	43	6.5	6	0	5	restart pu	
7/23/2011		69	78	43	6.5	12	0	18		
7/24/2011		69	79	44	6.5	12	0	24	3.5 min bt	
7/25/2011		66	79	44	6.5	12	0	25		
7/26/2011		66	79	45	6.5	12	0	22		
7/27/2011		66	79	45	6.5	12	0	24		
7/28/2011		67	79	45	6.5	12	0	24	3.5 min bt	
7/29/2011		67	90	42	6.5	12	0	18		
7/30/2011		68	86	46	6.5	12	0	20		
7/31/2011		68	82	45	6.5	12	0	22		

Total

1371

506

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 None  
 August-11

DATE	Tubing Casing				HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI	STATIC MCF	SPM			
8/1/2011		67	81	46	6.5	12	0 24
8/2/2011		67	80	46	6.5	12	0 22
8/3/2011		67	80	46	6.5	12	0 21
8/4/2011		68	80	46	6.5	12	0 23 3.75 min bt greased
8/5/2011		67	80	46	6.5	12	0 24
8/6/2011		67	80	46	6.5	12	0 21
8/7/2011		68	80	46	6.5	12	0 22
8/8/2011		66	80	46	6.5	12	0 28 3 min bt
8/9/2011		64	80	46	6.5	12	0 24
8/10/2011		64	77	46	6.5	12	0 21
8/11/2011		83	86	45	6.5	6	0 14 pu off, high fp
8/12/2011		94	98	42	6.5	0	0 0
8/13/2011		83	100	45	6.5	0	0 0
8/14/2011		90	100	40	6.5	0	0 0
8/15/2011		90	103	41	6.5	0	0 0
8/16/2011		67	90	42	6.5	6	0 14 restart pu
8/17/2011		121	87	30	6.5	6	5 15 pu off hfp
8/18/2011		68	103	41	6.5	6	4 14 restart pu
8/19/2011		73	86	42	6.5	12	1 24
8/20/2011		65	82	43	6.5	12	0 22
8/21/2011		65	78	43	6.5	12	0 21
8/22/2011		64	78	43	6.5	12	0 19 4.5 min bt
8/23/2011		73	77	36	6.5	12	0 20
8/24/2011		69	80	43	6.5	12	0 18
8/25/2011		67	79	43	6.5	12	0 18
8/26/2011		65	83	43	6.5	12	0 19
8/27/2011		67	78	44	6.5	12	0 18
8/28/2011		67	79	44	6.5	12	0 17
8/29/2011		67	79	44	6.5	12	0 19
8/30/2011		66	80	44	6.5	12	0 18 4.75 min bt
8/31/2011		67	79	45	6.5	12	0 19

Total

1343

539

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Zimbelman 03-24

St. Francis

St. Francis

None

September-11

DATE	Tubing Casing		STATIC MCF	SPM	CYCLE DOWN	HRS	Water	BLS	REMARKS (Maximum length 110 characters)
	PSI	PSI							
9/1/2011		68	79	44	6.5	12	0	18	
9/2/2011		67	80	44	6.5	12	0	19	
9/3/2011		67	80	45	6.5	12	0	20	
9/4/2011		67	80	45	6.5	12	0	21	
9/5/2011		67	79	45	6.5	12	0	19	
9/6/2011		67	79	45	6.5	12	0	17	5 min bt
9/7/2011		68	79	45	6.5	12	0	19	
9/8/2011		67	80	46	6.5	12	0	17	
9/9/2011		67	80	45	6.5	12	0	17	
9/10/2011		67	80	46	6.5	12	0	18	
9/11/2011		67	80	46	6.5	12	0	17	
9/12/2011		68	80	45	6.5	12	0	17	
9/13/2011		66	80	45	6.5	12	0	16	
9/14/2011		66	79	46	6.5	12	0	17	5 min bt
9/15/2011		66	79	46	6.5	12	0	18	
9/16/2011		66	79	46	6.5	12	0	16	
9/17/2011		66	79	46	6.5	12	0	15	
9/18/2011		66	79	46	6.5	12	0	17	
9/19/2011		67	79	45	6.5	12	0	19	
9/20/2011		66	79	45	6.5	12	0	17	5 min bt
9/21/2011		66	78	45	6.5	12	0	16	
9/22/2011		65	78	45	6.5	12	0	18	
9/23/2011		65	78	45	6.5	12	0	17	
9/24/2011		67	78	45	6.5	12	0	16	
9/25/2011		66	79	45	6.5	12	0	15	
9/26/2011		66	79	45	6.5	12	0	16	
9/27/2011		64	79	45	6.5	12	0	17	5 min bt
9/28/2011		68	76	46	6.5	12	0	19	
9/29/2011		63	77	46	6.5	12	0	18	
9/30/2011		64	76	46	6.5	12	0	15	
10/1/2011		0	0	0	0	0	0	0	

Total

1359

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