

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

Open Flow

**AST**

Deliverability

(See Instructions on Reverse Side)

Test Date:  
5/9/2011

API No. 15  
023-21260-00 -∞

Company Rosewood Resources, Inc.		Lease Zweygardt		Well Number 11-19	
County Cheyenne	Location NWNW	Section 19	TWP 3S	RNG (E/W) 40W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 9/23/2010		Plug Back Total Depth 1418'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1454'	Perforations 1252'	To 1282'
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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1464'		Pressure Taps Flange		Gas Gravity - G <sub>g</sub> .6 (Meter Run) (Prover) Size 2"	

Pressure Buildup: Shut in	5-8	20	11	at	5:25	(AM) <input checked="" type="checkbox"/> (PM)	Taken	5-9	20	11	at	5:40	(AM) <input checked="" type="checkbox"/> (PM)
Well on Line: Started	5-9	20	11	at	5:40	(AM) <input checked="" type="checkbox"/> (PM)	Taken	5-10	20	11	at	5:55	(AM) <input checked="" type="checkbox"/> (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>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						140	154.4				
Flow						98	112.4			24	

### 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>
						36		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_c)^2 =$  :  $(P_w)^2 =$  :  $P_d =$  %  $(P_c - 14.4) + 14.4 =$  :  $(P_w)^2 = 0.207$   
 $(P_d)^2 =$

$(P_c)^2 - (P_w)^2$ or $(P_c)^2 - (P_d)^2$	$(P_c)^2 - (P_w)^2$	Choose formula 1 or 2: 1. $P_c^2 - P_w^2$ 2. $P_c^2 - P_d^2$ divided by: $P_c^2 - P_w^2$	LOG of formula 1. or 2. and divide by: $P_c^2 - P_w^2$	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, 20 11

Witness (if any)

For Commission

*Samuel B. Bower*  
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 Zweygardt 11-19 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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W2730  
 Zweygardt 11-19  
 St. Francis  
 St. Francis  
 Flow  
 May-11  
 FloBoss

DATE	Tubing Casing		STATIC MCF	SPM	CYCLE DOWN	HRS	Water BLS	REMARKS (Maximum length 110 characters)
	PSI	PSI						
5/1/2011		181	121	42				
5/2/2011		181	121	42				
5/3/2011		110	120	42				
5/4/2011		110	119	41				
5/5/2011		111	118	41				
5/6/2011		117	104	41				
5/7/2011		117	104	41				
5/8/2011		133	146	40				
5/9/2011		140	153	0		24	Compressor Down	
5/10/2011		119	132	6				
5/11/2011		117	130	41				
5/12/2011		117	130	46				
5/13/2011		114	127	46				
5/14/2011		106	119	44				
5/15/2011		104	117	41				
5/16/2011		103	116	41				
5/17/2011		102	115	40				
5/18/2011		101	114	39				
5/19/2011		100	113	39				
5/20/2011		100	113	39				
5/21/2011		100	113	38				
5/22/2011		109	122	37				
5/23/2011		100	113	39				
5/24/2011		98	111	39				
5/25/2011		98	111	38				
5/26/2011		98	111	38				
5/27/2011		99	112	38				
5/28/2011		100	113	38				
5/29/2011		100	113	38				
5/30/2011		100	113	38				
5/31/2011		99	112	38				

Total

1171

0

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W2730

Zweygardt 11-19

St. Francis

St. Francis

Flow

June-11

FloBoss

DATE	Tubing	Casing	STATIC	MCF	SPM	CYCLF	DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI							
6/1/2011		107	120	36					
6/2/2011		99	112	36					
6/3/2011		98	111	36					
6/4/2011		99	112	36					
6/5/2011		99	112	36					
6/6/2011		98	111	36					
6/7/2011		97	110	36					
6/8/2011		96	109	36					
6/9/2011		97	110	36					
6/10/2011		97	110	36					
6/11/2011		97	110	35					
6/12/2011		97	110	35					
6/13/2011		97	110	35					
6/14/2011		97	110	35					
6/15/2011		96	109	35					
6/16/2011		100	113	35					
6/17/2011		97	110	35					
6/18/2011		98	111	35					
6/19/2011		98	111	35					
6/20/2011		97	110	35					
6/21/2011		97	110	35					
6/22/2011		97	110	34					
6/23/2011		110	123	32			1		
6/24/2011		98	111	35					
6/25/2011		97	110	34					
6/26/2011		97	110	34					
6/27/2011		96	109	34					
6/28/2011		96	109	34					
6/29/2011		96	109	34					
6/30/2011		96	109	34					
7/1/2011									

Total

1050

0

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W2730  
 Zweygardt 11-19  
 St. Francis  
 St. Francis  
 Flow  
 July-11  
 FloBoss

DATE	Tubing PSI	Casing PSI	STATIC MCF	SPM CYCLE	HRS DOWN	Water BLS	REMARKS (Maximum length 110 characters)
7/1/2011		96	109	33			
7/2/2011		95	108	33			
7/3/2011		95	108	33			
7/4/2011		95	108	33			
7/5/2011		96	109	33			
7/6/2011		94	107	33			
7/7/2011		95	108	33			
7/8/2011		95	108	33			
7/9/2011		95	108	33			
7/10/2011		95	108	33			
7/11/2011		94	107	33			
7/12/2011		93	106	33			
7/13/2011		87	100	33		1	
7/14/2011		94	107	32			
7/15/2011		93	106	33			
7/16/2011		94	107	32			
7/17/2011		96	109	32			
7/18/2011		104	117	32			
7/19/2011		95	108	32		2	
7/20/2011		93	106	32			
7/21/2011		99	112	32			
7/22/2011		91	104	31			
7/23/2011		92	105	31			
7/24/2011		90	103	32			
7/25/2011		92	105	32			
7/26/2011		91	104	32			
7/27/2011		90	103	32			
7/28/2011		92	105	32			
7/29/2011		96	109	32			
7/30/2011		92	105	32			
7/31/2011		92	105	32			

Total 1004 0

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