

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

Type Test:

- Open Flow **API**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
5/8/2013

API No. 15  
023-20632-0000

Company Rosewood Resources, Inc.		Lease Alvin		Well Number 44-08	
County Cheyenne	Location SESE/4	Section 8	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 1537'		Packer Set at	
Casing Size 2 7/8"	Weight 6.5#	Internal Diameter 2.441	Set at 1552'	Perforations 1419'	To 1451'
Tubing Size NONE	Weight	Internal Diameter	Set at	Perforations	To
Type Completion (Describe) Single (Conventional)		Type Fluid Production		Pump Unit or Traveling Plunger? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1451'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 5-7 20 13 at 10:20 (AM)(PM) Taken 5-8 20 13 at 10:35 (AM)(PM)		Well on Line: Started 5-8 20 13 at 10:35 (AM)(PM) Taken 5-9 20 13 at 11:20 (AM)(PM)			

### OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter 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>t</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						165	179.4				
Flow						92	116.4			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>
						11		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</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>a</sub>)<sup>2</sup> = 0.207  
(P<sub>d</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>d</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>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: $\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	Backpressure Curve Slope = "n" ----- Assigned Standard Slope	n x LOG $\left[ \frac{P_c^2 - P_a^2}{P_c^2 - P_w^2} \right]$	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 21 day of November, 20 13.

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

*Samuel M. [Signature]*  
For Company

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

**DEC 26 2013**  
**RECEIVED**

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 Alvin 44-8 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: 11/21/13

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.

**KCC WICHITA**

**DEC 26 2013**

**RECEIVED**

W2087  
 Alvin 44-8  
 St. Francis  
 St. Francis  
 None  
 May-13

DATE	Casing		MCF	HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC		DOWN		
5/1/2013	107	120		12		
5/2/2013	120	133		11		
5/3/2013	88	101		11		
5/4/2013	83	96		11		
5/5/2013	84	97		11		
5/6/2013	86	99		12		
5/7/2013	84	97		12		si for state test - cp 40
5/8/2013	42	55		0		24 reopened - cp 165
5/9/2013	95	108		14		
5/10/2013	94	107		12		
5/11/2013	93	106		12		
5/12/2013	92	105		12		
5/13/2013	91	104		12		
5/14/2013	93	106		12		
5/15/2013	127	140		12	2.5	
5/16/2013	99	112		12		
5/17/2013	90	103		12		
5/18/2013	90	103		12		
5/19/2013	101	114		12		
5/20/2013	96	109		12		
5/21/2013	88	101		12		
5/22/2013	92	105		11	14	
5/23/2013	165	178		9	10	
5/24/2013	134	147		10	4	
5/25/2013	120	133		12		
5/26/2013	112	125		12		
5/27/2013	109	122		12		
5/28/2013	104	117		12		
5/29/2013	96	109		12		
5/30/2013	92	105		11		
5/31/2013	90	103		11		

Total

350

**KCC WICHITA**  
**DEC 26 2013**  
**RECEIVED**

W2087  
 Alvin 44-8  
 St. Francis  
 St. Francis  
 None  
 June-13

DATE	Casing		MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
	PSI	STATIC			
6/1/2013	87	100		11	
6/2/2013	94	107		11	
6/3/2013	87	100		11	
6/4/2013	85	98		11	
6/5/2013	92	105		11	
6/6/2013	97	110		11	
6/7/2013	88	101		11	calibrate meter
6/8/2013	87	100		11	
6/9/2013	87	100		11	
6/10/2013	87	100		11	2
6/11/2013	98	111		11	1
6/12/2013	99	112		11	
6/13/2013	89	102		11	
6/14/2013	90	103		11	
6/15/2013	89	102		11	
6/16/2013	92	105		11	
6/17/2013	89	102		11	
6/18/2013	86	99		11	
6/19/2013	84	97		11	
6/20/2013	85	98		11	
6/21/2013	87	100		11	
6/22/2013	94	107		11	
6/23/2013	102	115		11	
6/24/2013	100	113		11	
6/25/2013	102	115		11	
6/26/2013	102	115		11	
6/27/2013	94	107		11	
6/28/2013	85	98		11	
6/29/2013	85	98		11	
6/30/2013	85	98		11	
7/1/2013					

Total

330

KCC WICHITA  
 DEC 26 2013  
 RECEIVED

W2087  
 Alvin 44-8  
 St. Francis  
 St. Francis  
 None  
 July-13

DATE	Casing		MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
	PSI	STATIC			
7/1/2013	85	98		11	
7/2/2013	86	99		11	
7/3/2013	87	100		11	
7/4/2013	88	101		11	
7/5/2013	87	100		11	
7/6/2013	87	100		11	
7/7/2013	92	105		11	
7/8/2013	93	106		11	
7/9/2013	92	105		11	
7/10/2013	87	100		11	
7/11/2013	87	100		11	
7/12/2013	93	106		11	
7/13/2013	97	110		11	2.5
7/14/2013	99	112		11	
7/15/2013	87	100		11	
7/16/2013	86	99		11	
7/17/2013	84	97		11	
7/18/2013	94	107		10	
7/19/2013	95	108		11	
7/20/2013	96	109		11	
7/21/2013	95	108		11	
7/22/2013	96	109		11	
7/23/2013	90	103		11	
7/24/2013	94	107		10	
7/25/2013	98	111		10	
7/26/2013	89	102		11	
7/27/2013	84	97		11	
7/28/2013	84	97		11	
7/29/2013	84	97		10	
7/30/2013	83	96		10	3.5
7/31/2013	115	128		10	5.5

Total 335

KCC WICHITA  
 DEC 26 2013  
 RECEIVED