

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

Type Test:

- Open Flow  **SI**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
7/28/2009

API No. 15  
15-023-20591 **0000**

Company Rosewood Resources		Lease Dunn		Well Number 1-13	
County Cheyenne	Location SWNW	Section 13	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 9/10/2004		Plug Back Total Depth 1477'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1487'	Perforations 1300'	To 1336'
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? <input checked="" type="checkbox"/> Yes / No Pumping Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1336'		Pressure Taps Flange		Gas Gravity - G <sub>g</sub> .6	
				(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 7-27 20 09 at 8:50 (AM) (PM)		Taken 7-28 20 09 at 9:05 (AM) (PM)			
Well on Line: Started 7-28 20 09 at 9:05 (AM) (PM)		Taken 7-29 20 09 at 9:50 (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>c</sub> ) or (P <sub>e</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>e</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						40	54.4				
Flow						115	129.4			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>tt</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						24		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>a</sub>)<sup>2</sup> = 0.207

(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>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: $\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2}$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability Equals R x Antilog (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 18 day of November, 20 09.

Witness (if any)

For Commission

For Company

Checked by

*Tom W. Roelf*  
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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.

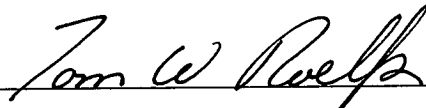
I hereby request a one-year exemption from open flow testing for the Dunn 1-13 gas well on the grounds that said well:

(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: 11/18/09

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.

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W346  
 Dunn 1-13  
 St. Francis  
 St. Francis  
 None  
 July-09  
 FloBoss

DATE	Tubing Casing		STATIC MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)	
	PSI	PSI						
7/1/2009			55	24	6	12	0	19
7/2/2009			55	24	6	12	0	18
7/3/2009			55	23	6	12	0	17
7/4/2009			53	23	6	12	0	18
7/5/2009			53	23	6	12	0	19
7/6/2009			53	23	6	12	0	18
7/7/2009			55	22	6	12	0	17
7/8/2009			132	9	6	12	6	19 shut pump off hfp
7/9/2009			71	5	6	12	0	0 started pumping unit
7/10/2009			48	23	6	12	0	19
7/11/2009			47	23	6	12	0	18
7/12/2009			48	23	6	12	0	17
7/13/2009			49	23	6	12	0	18
7/14/2009			50	23	6	12	0	19
7/15/2009			54	22	6	12	0	19
7/16/2009			48	22	0	0	0	18 pump off
7/17/2009			53	20	0	0	0	0
7/18/2009			49	20	0	0	0	0
7/19/2009			52	20	6	12	0	0 started pumping unit
7/20/2009			76	14	6	12	7	19
7/21/2009			72	18	6	12	0	19
7/22/2009			57	18	6	12	0	18
7/23/2009			53	19	6	12	0	17
7/24/2009			51	19	6	12	0	18
7/25/2009			51	17	6	12	0	19
7/26/2009			51	20	6	12	0	18
7/27/2009			50	14	6	12	4	17
7/28/2009		40	48	20	6	12	0	18 shut in for test
7/29/2009		115	59	1	6	12	0	0 open
7/30/2009			72	30	6	12	0	19
7/31/2009			59	29	6	12	0	

Total

614

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W346  
 Dunn 1-13  
 St. Francis  
 St. Francis  
 None  
 August-09  
 FloBoss

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2009			56	29	6	12	0	19	
8/2/2009			54	28	6	12	0	18	
8/3/2009			63	28	6	12	0	17	
8/4/2009			53	28	6	12	0	18	
8/5/2009			53	28	6	12	0	19	
8/6/2009			52	26	6	12	0	18	
8/7/2009			51	28	6	12	0	17	
8/8/2009			51	28	6	12	0	18	
8/9/2009			50	28	6	12	0	19	
8/10/2009			50	28	0	0	0	0	0 PU OFF
8/11/2009			46	26	0	0	0	0	
8/12/2009			47	25	0	0	0	0	
8/13/2009			44	24	0	0	0	0	
8/14/2009			48	24	0	0	0	0	
8/15/2009			49	24	0	0	0	0	
8/16/2009			47	25	0	0	0	0	
8/17/2009			123	9	0	0	0	0	
8/18/2009			125	0	0	0	0	0	
8/19/2009			124	0	0	0	0	0	
8/20/2009			47	13	0	0	0	0	
8/21/2009			49	23	0	0	0	0	
8/22/2009			47	23	0	0	0	0	
8/23/2009			55	15	0	0	0	0	
8/24/2009			64	17	0	0	0	0	
8/25/2009			90	17	0	0	0	0	
8/26/2009			64	20	6	12	0	0	0 started pump
8/27/2009			64	20	6	12	0	19	
8/28/2009			50	24	6	12	0	18	
8/29/2009			51	24	6	12	0	19	
8/30/2009			67	23	6	12	0	18	
8/31/2009			51	25	6	12	0	17	

Total

680

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 KCC WICHITA

W346  
 Dunn 1-13  
 St. Francis  
 St. Francis  
 None  
 September-09  
 FloBoss

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs
9/1/2009			49	25				0
9/2/2009			54	26				0
9/3/2009			53	26				0
9/4/2009			54	22				6
9/5/2009			53	26				0
9/6/2009			52	26				0
9/7/2009			52	26				0
9/8/2009			52	26				0
9/9/2009			55	27				0
9/10/2009			50	27				0
9/11/2009			48	25				0
9/12/2009			48	24				0
9/13/2009			53	23				1.5
9/14/2009			83	23				0
9/15/2009			48	23				0
9/16/2009			46	23				0
9/17/2009			45	22				0
9/18/2009			45	22				0
9/19/2009			45	22				0
9/20/2009			46	22				0
9/21/2009			44	22				0
9/22/2009			44	22				0
9/23/2009			44	22				0
9/24/2009			45	9				0
9/25/2009			61	11				6
9/26/2009			100	0				0
9/27/2009			82	0				0
9/28/2009			68	1				0
9/29/2009			47	16				0
9/30/2009			103	13				8
10/1/2009								0

Total 602

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