

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

Type Test:

- Open Flow **AST**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
8/23/2012

API No. 15  
023-20658-0000

Company Rosewood Resources, Inc.		Lease Neitzel		Well Number 23-30	
County Cheyenne	Location NESW	Section 30	TWP 3S	RNG (E/W) 40W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara	Gas Gathering Connection Branch Systems Inc.		
Completion Date 3/13/2006		Plug Back Total Depth 1423'	Packer Set at		
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1423'	Perforations 1272'	To 1308'
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="radio"/> Yes / No Pumping Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	Gas Gravity - G <sub>g</sub> .6
Vertical Depth(H) 1272'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 8-22 20 12 at 9:55 (AM) (PM)		Taken 8-23 20 12 at 10:10 (AM) (PM)			
Well on Line: Started 8-23 20 12 at 10:10 (AM) (PM)		Taken 8-24 20 12 at 10:55 (AM) (PM)			

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**OBSERVED SURFACE DATA**

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter 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						196	210.4				
Flow						61	75.4			24	

**FLOW STREAM ATTRIBUTES**

Plate Coefficient (F <sub>b</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>
						4		

**(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>o</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" ----- or ----- 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 (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 19 day of December, 20 12.

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

Jarrell Geewen  
For Company

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

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

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Form G-2  
(Rev. 7/03)

## 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 Neitzel 23-30 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: 12/19/12

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.

W362

Neitzel 23-30

St. Francis

St. Francis

Pumping Unit

August-12

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KCC WICHITA

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2012		58	71	0				
8/2/2012		60	73	0				
8/3/2012		59	72	0				
8/4/2012		60	73	0				
8/5/2012		60	73	0				
8/6/2012		58	71	0				
8/7/2012		62	75	0				
8/8/2012		62	75	0				
8/9/2012		60	73	0				
8/10/2012		73	86	0				
8/11/2012		61	74	0		1.5		
8/12/2012		60	73	0				
8/13/2012		67	70	0				
8/14/2012		56	69	0				
8/15/2012		62	75	0				
8/16/2012		57	70	0				
8/17/2012		54	67	0				
8/18/2012		55	68	0				
8/19/2012		53	66	0				
8/20/2012		56	69	0				
8/21/2012		55	68	0				
8/22/2012		60	73	0				
8/23/2012		196	71	0		24		si for state test cp-65 reopened cp-196
8/24/2012		61	74	4				
8/25/2012		63	76	0				
8/26/2012		61	74	1				
8/27/2012		59	72	1				
8/28/2012		58	71	0	6	12		17 restart pu
8/29/2012		60	73	2	6	12		18 4.75 min bt
8/30/2012		60	73	3	6	12		16
8/31/2012		59	72	3	6	12		19

Total

14

70

W362  
 Neitzel 23-30  
 St. Francis  
 St. Francis  
 Pumping Unit  
 September-12

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 KCC WICHITA

DATE	Tubing Casing			MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI	STATIC					
9/1/2012		59	72	4	6	12	18	
9/2/2012		59	72	4	6	12	20	
9/3/2012		59	72	4	6	12	19	4.5min bt
9/4/2012		59	72	5	6	12	1	17
9/5/2012		75	88	4	6	12	20	
9/6/2012		58	71	5	6	6	28	3 min bt, pu off hfp
9/7/2012		162	175	2	6	0	19	0
9/8/2012		171	184	0	6	0	24	0
9/9/2012		177	190	0	6	0	24	0
9/10/2012		173	186	0	6	0	24	0
9/11/2012		183	196	0	6	0	24	0
9/12/2012		184	197	0	6	0	24	0
9/13/2012		113	126	0	6	0	10	0
9/14/2012		103	116	0	6	0	0	0
9/15/2012		94	107	8	6	0	0	0
9/16/2012		94	107	2	6	0	0	0
9/17/2012		82	95	1	6	0	0	0
9/18/2012		63	76	2	6	6	14	restart pu
9/19/2012		82	95	1	6	6	14	pu off hfp
9/20/2012		54	67	3	6	6	14	restart pu
9/21/2012		56	69	3	6	12	28	
9/22/2012		55	68	4	6	12	27	
9/23/2012		55	68	4	6	12	26	
9/24/2012		59	72	4	6	12	26	
9/25/2012		62	75	4	6	12	27	
9/26/2012		62	75	4	6	12	21	4 min bt
9/27/2012		71	84	3	6	12	19	
9/28/2012		62	75	4	6	12	20	
9/29/2012		62	75	4	6	12	17	
9/30/2012		62	75	4	6	12	18	
10/1/2012								

Total

83

393

W362

Neitzel 23-30

St. Francis

St. Francis

Pumping Unit

October-12

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JAN 03 2013

KCC WICHITA

DATE	Tubing Casing		STATIC MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI						
10/1/2012	62	75	4	6	12		21	
10/2/2012	62	75	4	6	12		23	
10/3/2012	63	76	4	6	12		22	
10/4/2012	60	73	4	6	12		21	4 min bt
10/5/2012	60	73	4	6	12		21	
10/6/2012	60	73	4	6	12		22	
10/7/2012	60	73	5	6	12		21	
10/8/2012	61	74	5	6	12		21	
10/9/2012	61	74	5	6	12		20	
10/10/2012	61	74	5	6	12		17	5 min bt greased
10/11/2012	62	75	5	6	12		17	
10/12/2012	61	74	5	6	12		15	
10/13/2012	63	76	5	6	12		14	
10/14/2012	64	77	5	6	12		17	
10/15/2012	62	75	5	6	12		16	
10/16/2012	66	79	5	6	12	1	19	
10/17/2012	60	73	5	6	12		17	5 min bt
10/18/2012	60	73	5	6	12		16	
10/19/2012	60	73	6	6	12		15	
10/20/2012	61	74	6	6	12		15	
10/21/2012	60	73	6	6	12		14	
10/22/2012	60	73	6	6	12		18	
10/23/2012	60	73	6	6	12		19	
10/24/2012	60	73	6	6	12		17	
10/25/2012	57	70	6	6	12		18	4.75 min bt
10/26/2012	60	73	6	6	12		15	
10/27/2012	59	72	6	6	12		12	
10/28/2012	58	71	6	6	12		19	
10/29/2012	69	82	6	6	6	2	9	pu off hfp
10/30/2012	74	87	5	6	0		0	
10/31/2012	59	72	5	6	6		9	restart pu

Total

160

520