

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

(See Instructions on Reverse Side)

Type Test:

Open Flow **ST**
 Deliverability

Test Date:
6/15/2011

API No. 15
023-20608-00 - 00

Company Rosewood Resources, Inc.		Lease Isernhagen		Well Number 4-23	
County Cheyenne	Location SWSE/4	Section 23	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 5/27/2005		Plug Back Total Depth 1449'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1449'	Perforations 1250'	To 1282'
Tubing Size None 2 3/8"	Weight	Internal Diameter 1.317'	Set at	Perforations	To
Type Completion (Describe) Single (Conventional)		Type Fluid Production Dry Gas		Pump Unit or Travelling Plunger? <input checked="" type="radio"/> Yes / <input type="radio"/> No Pumping Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1282'		Pressure Taps Flange		Gas Gravity - G _g .6	
Pressure Buildup: Shut in 6-14 20 11 at 8:15 (AM)(PM)		Taken 6-15 20 11 at 8:30 (AM)(PM)			
Well on Line: Started 6-15 20 11 at 8:30 (AM)(PM)		Taken 6-16 20 11 at 9:15 (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 ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P _i) or (P _e)		Tubing Wellhead Pressure (P _w) or (P _i) or (P _e)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-in						58	72.4				
Flow						62	76.4			24	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _s) (F _p) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F _g	Flowing Temperature Factor F _{tt}	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						14		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_e)² = _____ : (P_w)² = _____ : P_d = _____ % (P_e - 14.4) + 14.4 = _____ : (P_e)² = 0.207
(P_d)² = _____

(P _e) ² - (P _w) ² or (P _e) ² - (P _d) ²	(P _e) ² - (P _w) ²	Choose formula 1 or 2: 1. P _e ² - P _w ² 2. P _e ² - P _d ² divided by: P _e ² - P _w ²	LOG of formula 1. or 2. and divide by: $\frac{P_e^2 - P_w^2}{P_e^2 - P_d^2}$	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

[Signature]

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 Isemhagen 4-23 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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Isernhagen 04:23

St. Francis

St. Francis

None

June-11

DATE	Tubing Casing				HRS	Water	REMARKS (Maximum length 110 characters)	
	PSI	PSI	STATIC MCF	SPM CYCLE DOWN				BBLs
6/1/2011		74	80	13	6	0	0	0 pump stacked out pu off
6/2/2011		60	81	13	6	0	0	0
6/3/2011		59	73	13	6	0	0	0
6/4/2011		59	72	12	6	0	0	0 pump stacked out pu off
6/5/2011		59	72	12	6	0	0	0
6/6/2011		60	73	12	6	0	0	0
6/7/2011		57	73	12	6	0	0	0 wo rig on site
6/8/2011		58	71	3	6	7	0	10
6/9/2011		58	73	4	6	14	0	20
6/10/2011		59	72	6	6	14	0	20 5 min bt
6/11/2011		59	72	7	6	14	0	21
6/12/2011		59	72	8	6	14	0	19
6/13/2011		60	73	8	6	14	0	22 4.5 min btgreased
6/14/2011		59	73	8	6	7	0	10 si for 24 hrs squeezed
6/15/2011		58	73	0	6	7	24	11 reopen well restart pu
6/16/2011		64	83	14	6	14	0	19
6/17/2011		63	76	14	6	14	0	22
6/18/2011		62	75	14	6	14	0	21
6/19/2011		63	75	14	6	14	0	22
6/20/2011		63	76	14	6	14	0	23
6/21/2011		62	76	14	6	14	0	24 4.25 min bt
6/22/2011		62	76	14	6	14	0	22
6/23/2011		78	100	14	6	14	1	21
6/24/2011		64	81	14	6	14	0	23
6/25/2011		62	76	14	6	14	0	20
6/26/2011		62	75	15	6	14	0	25
6/27/2011		62	75	15	6	14	0	24 4.25 min bt
6/28/2011		63	75	15	6	14	0	23
6/29/2011		64	75	15	6	14	0	22
6/30/2011		63	76	15	6	14	0	23
7/1/2011		0	0	0	0	0	0	

Total

346

467

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St. Francis

St. Francis

None

July-11

DATE	Tubing Casing		STATIC MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI					
7/1/2011		64	75	15	6	14	0 24
7/2/2011		64	75	16	6	14	0 23
7/3/2011		64	75	16	6	14	0 22
7/4/2011		64	76	16	6	14	0 24
7/5/2011		63	76	16	6	14	0 21
7/6/2011		63	75	16	6	14	0 22 4.5 min bt greased
7/7/2011		63	75	16	6	14	0 23
7/8/2011		62	76	16	6	14	0 21
7/9/2011		62	75	17	6	14	0 22
7/10/2011		62	75	17	6	14	0 23
7/11/2011		62	75	17	6	14	0 21 4.75 min bt
7/12/2011		62	75	17	6	14	0 20
7/13/2011		54	73	17	6	14	1 19
7/14/2011		62	74	18	6	14	0 18
7/15/2011		62	75	18	6	14	0 18
7/16/2011		64	75	18	6	14	0 18
7/17/2011		64	80	18	6	14	0 19
7/18/2011		86	76	18	6	7	0 9 shut pu off, high field pressure
7/19/2011		64	84	17	6	7	2 11 restart pu 4.75 min bt
7/20/2011		63	76	17	6	14	0 21
7/21/2011		74	86	17	6	7	0 11 pu off hfp
7/22/2011		59	78	17	6	7	0 11 restart pu
7/23/2011		62	72	17	6	14	0 19
7/24/2011		62	73	18	6	14	0 27 3.75 min bt
7/25/2011		59	73	18	6	14	0 26
7/26/2011		59	73	18	6	14	0 25
7/27/2011		60	73	18	6	14	0 20
7/28/2011		60	73	18	6	14	0 21
7/29/2011		71	85	18	6	14	0 18
7/30/2011		61	80	19	6	14	0 22
7/31/2011		61	76	18	6	14	0 23

Total

532

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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		61	74	19	6	14	0	24
8/2/2011		60	74	19	6	14	0	23
8/3/2011		60	73	19	6	14	0	22 4.5 min bt greased
8/4/2011		60	74	19	6	14	0	21
8/5/2011		61	74	19	6	14	0	20
8/6/2011		60	74	19	6	14	0	22
8/7/2011		60	74	19	6	14	0	23
8/8/2011		60	73	19	6	14	0	21
8/9/2011		57	73	19	6	14	0	22 4.5 min bt
8/10/2011		56	70	19	6	14	0	23
8/11/2011		91	80	19	6	14	0	22
8/12/2011		91	93	19	6	7	0	11 shut pumping unit off hfp
8/13/2011		78	96	18	6	0	0	0
8/14/2011		86	96	16	6	0	0	0
8/15/2011		86	100	16	6	0	0	0
8/16/2011		61	86	16	6	7	0	11 restart pu
8/17/2011		162	89	14	6	7	5	11 pu off hfp
8/18/2011		62	100	19	6	7	4	11 restart pu
8/19/2011		68	81	18	6	14	1	22
8/20/2011		60	77	19	6	14	0	23
8/21/2011		59	72	19	6	14	0	21
8/22/2011		58	72	19	6	14	0	22 4.5 min bt
8/23/2011		67	72	17	6	14	0	21
8/24/2011		57	75	20	6	14	0	20
8/25/2011		61	73	20	6	14	0	23
8/26/2011		59	77	20	6	14	0	22
8/27/2011		61	72	20	6	14	0	21
8/28/2011		60	74	20	6	14	0	20
8/29/2011		61	74	20	6	14	0	21
8/30/2011		60	74	20	6	14	0	22
8/31/2011		60	73	20	6	14	0	22 4.5 min bt

Total

579

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