

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **RFI**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
7/8/2015

API No. 15
023-20631-0000

Company Rosewood Resources, Inc.		Lease Rudolph		Well Number 33-09	
County Cheyenne	Location NWSE/4	Section 9	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/21/2005		Plug Back Total Depth 1540'		Packer Set at	
Casing Size 2 7/8"	Weight 6.5#	Internal Diameter 2.441	Set at 1540'	Perforations 1421'	To 1453'
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) 1453'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 7-8 20 15 at 10:15 <input checked="" type="checkbox"/> (AM) (PM)		Taken 7-9 20 15 at 10:30 <input checked="" type="checkbox"/> (AM) (PM)			
Well on Line: Started 7-9 20 15 at 10:30 <input checked="" type="checkbox"/> (AM) (PM)		Taken 7-10 20 15 at 11:15 <input checked="" type="checkbox"/> (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 _t) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _t) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						173	187.4				
Flow						31	45.4			24	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _s) (F _c) 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
						11		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = _____ ; (P_w)² = _____ ; P_d = _____ % ; (P_c - 14.4) + 14.4 = _____ ; (P_a)² = 0.207 ; (P_d)² = _____

(P _c) ² - (P _a) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a 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: $\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2}$	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 28 day of December, 20 15.

KCC WICHITA

Samuel M. Toney
For Company

Witness (if any)

APR 07 2016

For Commission

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 Rudolph 33-9 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: 12/28/15

Signature: *Jerrell Martey*
Title: Production Assistant

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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.

W441

Rudolph 33-9-11

St. Francis

St. Francis

None

July-15

DATE	Casing		HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC MCF	DOWN		
7/1/2015	34	47	6	0	
7/2/2015	34	46	6	0	
7/3/2015	34	46	11	0	
7/4/2015	34	46	11	0	
7/5/2015	34	46	6	0	
7/6/2015	31	52	11	2	
7/7/2015	34	46	11	0	
7/8/2015	34	45	11	16	
7/9/2015	58	45	0	24	
7/10/2015	173	143	0	14	
7/11/2015	87	105	14	0	
7/12/2015	60	81	13	0	
7/13/2015	40	68	12	0	
7/14/2015	36	49	11	0	
7/15/2015	36	44	5	0	
7/16/2015	36	46	10	0	
7/17/2015	36	46	9	0	
7/18/2015	31	46	10	0	flowing 9
7/19/2015	31	45	11	0	
7/20/2015	31	46	6	0	
7/21/2015	33	32	9	0	2 meter 0, rplcd battery
7/22/2015	36	46	10	0	
7/23/2015	34	46	11	0	
7/24/2015	32	46	11	0	
7/25/2015	31	46	11	0	
7/26/2015	31	45	11	0	
7/27/2015	33	45	11	0	
7/28/2015	31	45	11	0	
7/29/2015	31	45	11	0	
7/30/2015	31	45	11	0	
7/31/2015	31	45	11	0	

Total

292

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Rudolph-98-9

St. Francis

St. Francis

None

August-15

DATE	Casing		HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC MCF	DOWN		
8/1/2015	32	45	11	0	
8/2/2015	33	46	11	0	
8/3/2015	34	47	11	0	
8/4/2015	32	45	11	0	
8/5/2015	32	45	11	0	
8/6/2015	32	45	11	0	
8/7/2015	32	45	11	0	
8/8/2015	32	45	11	0	
8/9/2015	32	45	11	0	
8/10/2015	32	45	11	0	
8/11/2015	32	45	11	0	
8/12/2015	33	46	11	0	
8/13/2015	33	46	11	0	
8/14/2015	34	47	11	0	
8/15/2015	34	47	10	0	
8/16/2015	36	49	11	0	
8/17/2015	35	48	10	0	
8/18/2015	35	48	11	0	
8/19/2015	36	49	10	0	
8/20/2015	35	48	11	0	
8/21/2015	36	49	10	0	
8/22/2015	37	50	11	0	
8/23/2015	38	51	10	0	
8/24/2015	38	51	11	0	
8/25/2015	39	52	11	0	
8/26/2015	36	49	11	0	
8/27/2015	36	49	11	0	
8/28/2015	35	48	11	0	
8/29/2015	38	51	10	0	
8/30/2015	41	54	10	4	
8/31/2015	44	57	11	0	

Total

334

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Rudolph 339

St. Francis

St. Francis

None

September-15

DATE	Casing		MCF	HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC		DOWN		
9/1/2015	53	66		11	0	
9/2/2015	30	43		10	0	
9/3/2015	30	43		11	0	
9/4/2015	34	47		10	0	
9/5/2015	40	53		10	0	
9/6/2015	44	57		10	0	
9/7/2015	43	56		10	0	
9/8/2015	41	54		10	0	
9/9/2015	39	52		11	0	
9/10/2015	31	44		10	0	
9/11/2015	36	49		11	0	
9/12/2015	38	51		10	0	
9/13/2015	38	51		11	0	
9/14/2015	39	52		10	0	
9/15/2015	41	54		11	0	
9/16/2015	43	56		10	0	
9/17/2015	44	57		10	0	
9/18/2015	44	57		11	0	
9/19/2015	40	53		11	0	
9/20/2015	38	51		10	0	
9/21/2015	40	53		10	0	
9/22/2015	42	55		10	0	
9/23/2015	43	56		10	0	
9/24/2015	0	56		10	0	
9/25/2015	0	56		10	0	
9/26/2015	0	56		10	0	
9/27/2015	0	56		10	0	
9/28/2015	0	56		10	0	
9/29/2015	0	56		10	0	
9/30/2015	0	56		10	0	
10/1/2015	0	0		0	0	

Total

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