

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow *DFL*
 Deliverability

(See Instructions on Reverse Side)

Test Date:
6/1/2015

API No. 15
023-20110 ~ 0000

Company Rosewood Resources, Inc.		Lease Rueb		Well Number 1-9	
County Cheyenne	Location SESE	Section 9	TWP 3S	RNG (E/W) 42W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 7-24-1999		Plug Back Total Depth 1673'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1595'	Perforations 1560'	To 1590'
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) 1590'		Pressure Taps Flange		Gas Gravity - G _g .6	
Pressure Buildup: Shut in 6-1		20 15 at 1:25		(AM) <input checked="" type="checkbox"/> (PM) Taken 6-4	
Well on Line: Started 6-4		20 15 at 1:40		(AM) <input checked="" type="checkbox"/> (PM) Taken 6-5	
		20 15 at 1:40		(AM) <input checked="" type="checkbox"/> (PM) Taken 6-5	

OBSERVED SURFACE DATA

Duration of Shut-in **96** Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (P _m)	Pressure Differential in Inches H ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P ₁) or (P _c)		Tubing Wellhead Pressure (P _w) or (P ₁) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-in						152	166.4				
Flow						36	50.4			96	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _b) (F _a) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F _g	Flowing Temperature Factor F _t	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						20		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_a)² = 0.207

(P_c)² = _____ : (P_w)² = _____ : P_d = _____ % (P_c - 14.4) + 14.4 = _____ : (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: $\left[\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG $\left[\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	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 21 day of December, 20 15.

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Witness (if any)

For Commission

For Company

Checked by

Jerrald Martinez
For Company

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 Rueb 1-9 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: 12/21/15

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Signature: *Janell Martiny*
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.

W368 WELL ID
 Rueb 1-9 LEASE NAME
 West St. Francis FIELD
 St. Francis AREA
 Pumping Unit/Elec EQUIPMENT
 June-15 DATE
 Chart Meter

DATE	Line PSI	Casing PSI	STATIC	DIFF'L	COEF	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
6/1/2015	122	122	135	15	0.866	0	0	0	0	24	
6/2/2015	125	125	138	15	0.866	0	0	0	0	24	
6/3/2015	139	139	152	15	0.866	0	0	0	0	24	
6/4/2015	141	141	154	15	0.866	0	0	0	0	24	
6/5/2015	88	88	101	15	0.866	34	8	10		0	
6/6/2015	21	21	34	15	0.866	20	8	10		0	
6/7/2015	21	21	34	15	0.866	20	8	10		0	
6/8/2015	23	23	36	15	0.866	20	8	10		0	
6/9/2015	23	23	36	15	0.866	20	8	10		0	
6/10/2015	23	23	36	15	0.866	20	8	10		0	
6/11/2015	23	23	36	15	0.866	20	8	10		0	
6/12/2015	23	23	36	15	0.866	20	8	10		0	
6/13/2015	23	23	36	15	0.866	20	8	10		0	
6/14/2015	23	23	36	15	0.866	20	8	10		0	
6/15/2015	23	23	36	15	0.866	20	8	10		0	
6/16/2015	23	23	36	15	0.866	20	8	10		0	
6/17/2015	23	23	36	15	0.866	20	8	10		0	
6/18/2015	23	23	36	15	0.866	20	8	10		0	
6/19/2015	23	23	36	15	0.866	20	8	10		0	
6/20/2015	23	23	36	15	0.866	20	8	10		0	
6/21/2015	23	23	36	15	0.866	20	8	10		0	
6/22/2015	23	23	36	15	0.866	20	8	10		0	
6/23/2015	23	23	36	13	0.866	19	8	10		0	
6/24/2015	23	23	36	13	0.866	19	8	10		0	
6/25/2015	23	23	36	13	0.866	19	8	10		0	
6/26/2015	23	23	36	13	0.866	19	8	10		0	
6/27/2015	23	23	36	13	0.866	19	8	10		0	
6/28/2015	23	23	36	13	0.866	19	8	10		0	
6/29/2015	23	23	36	13	0.866	19	8	10		0	
6/30/2015	23	23	36	13	0.866	19	8	10		0	
7/1/2015		0	13		0.866	0				0	

Total

526

0

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W368 WELL ID
 Kuehler LEASE NAME
 West St. Francis FIELD
 St. Francis AREA
 Pumping Unit/Elec EQUIPMENT
 July-15 DATE
 Chart Meter

DATE	Line PSI	Casing PSI	STATIC	DIFFL	COEF	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2015	23	21	34	13	0.866	18	8	10			
7/2/2015	23	23	36	13	0.866	19	8	10			
7/3/2015	23	23	36	13	0.866	19	8	10			
7/4/2015	23	23	36	13	0.866	19	8	10			
7/5/2015	23	23	36	13	0.866	19	8	10			
7/6/2015	23	23	36	13	0.866	19	8	10			
7/7/2015	23	23	36	13	0.866	19	8	10			
7/8/2015	23	23	36	13	0.866	19	8	10			
7/9/2015	23	23	36	13	0.866	19	8	10			
7/10/2015	23	23	36	13	0.866	19	8	10			
7/11/2015	23	23	36	13	0.866	19	8	10			
7/12/2015	23	23	36	13	0.866	19	8	10			
7/13/2015	23	23	36	13	0.866	19	8	10			
7/14/2015	23	23	36	13	0.866	19	8	10			
7/15/2015	23	23	36	13	0.866	19	8	10			
7/16/2015	23	23	36	13	0.866	19	8	10			
7/17/2015	48	48	61	7	0.866	18	8	10			
7/18/2015	48	48	61	7	0.866	18	8	10			
7/19/2015	23	23	36	14	0.866	19	8	10		3	
7/20/2015	23	23	36	14	0.866	19	8	10		3	
7/21/2015	25	25	38	10	0.866	17	8	10			
7/22/2015	24	24	37	11	0.866	17	8	10			
7/23/2015	24	24	37	11	0.866	17	8	10			
7/24/2015	24	24	37	11	0.866	17	8	10			
7/25/2015	24	24	37	11	0.866	17	8	10			
7/26/2015	24	24	37	11	0.866	17	8	10			
7/27/2015	24	24	37	11	0.866	17	8	10			
7/28/2015	24	24	37	11	0.866	17	8	10			
7/29/2015	24	24	37	11	0.866	17	8	10			Note on chart: Test meter
7/30/2015	30	30	43	9	0.866	17	8	10			
7/31/2015	23	23	36	14	0.866	19	8	10			3 no water pu off

Total

566

9

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W368 WELL ID
 [REDACTED] LEASE NAME
 West St. Francis FIELD
 St. Francis AREA
 Pumping Unit/Elec EQUIPMENT
 August-15 DATE
 Chart Meter

DATE	Line PSI	Casing PSI	STATIC	DIFF'L	COEF	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2015	30	30	43	43	9	0.866	17	8	10		
8/2/2015	30	30	43	43	9	0.866	17	8	10		
8/3/2015	32	32	45	45	9	0.866	17	8	10		
8/4/2015	30	30	43	43	9	0.866	17	8	10		
8/5/2015	30	30	43	43	9	0.866	17	8	10		
8/6/2015	28	28	41	41	8	0.866	16	8	10		
8/7/2015	28	28	41	41	8	0.866	16	8	10		
8/8/2015	28	28	41	41	8	0.866	16	8	10		
8/9/2015	27	27	40	40	9	0.866	16	8	10		
8/10/2015	26	26	39	39	9	0.866	16	8	10		
8/11/2015	26	26	39	39	9	0.866	16	8	10		
8/12/2015	25	25	38	38	10	0.866	17	8	10		
8/13/2015	25	25	38	38	10	0.866	17	8	10		
8/14/2015	25	25	38	38	10	0.866	17	8	10		
8/15/2015	25	25	38	38	10	0.866	17	8	10		
8/16/2015	25	25	38	38	10	0.866	17	8	10		
8/17/2015	25	25	38	38	10	0.866	17	8	10		
8/18/2015	25	25	38	38	10	0.866	17	8	10		
8/19/2015	30	30	43	43	8	0.866	16	8	10		
8/20/2015	26	26	39	39	9	0.866	16	8	10		
8/21/2015	60	60	73	73	5	0.866	17	8	10		AVG 60psi, AVG 5 diff
8/22/2015	38	38	51	51	8	0.866	17	8	10		
8/23/2015	29	29	42	42	8	0.866	16	8	10		
8/24/2015	28	28	41	41	9	0.866	17	8	10		
8/25/2015	28	28	41	41	10	0.866	18	8	10		
8/26/2015	30	30	43	43	9	0.866	17	8	10		
8/27/2015	30	30	43	43	9	0.866	17	8	10		PU needs moved forward
8/28/2015	30	30	43	43	9	0.866	17	8	10		
8/29/2015	30	30	43	43	9	0.866	17	8	10		
8/30/2015	30	30	43	43	9	0.866	17	8	10		
8/31/2015	30	30	43	43	9	0.866	17	8	10		

Total

519

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