

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

(See Instructions on Reverse Side)

Open Flow **AST**
 Deliverability

Test Date:
7/9/2015

API No. 15
023-20613-0000

Company Rosewood Resources, Inc.		Lease Willard		Well Number 1-26	
County Cheyenne	Location NW NE/4	Section 26	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 5/27/2005		Plug Back Total Depth 1506'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1506'	Perforations 1294'	To 1328'
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) 1328'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 7-7		20 15 at 8:20		(AM) (PM) Taken 7-10	
Well on Line: Started 7-10		20 15 at 8:35		(AM) (PM) Taken 7-11	
		20 15 at 8:35		(AM) (PM) Taken 7-11	
		20 15 at 8:35		(AM) (PM) Taken 7-11	

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 _c)		Tubing Wellhead Pressure (P _w) or (P _i) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						173	187.4				
Flow						57	71.4			24	

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _v) (F _p) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F _v	Flowing Temperature Factor F _{tt}	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						40		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_a)² = 0.207
(P_o)² =

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

(P _c) ² - (P _o) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _o ² - P _d 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: $\frac{P_c^2 - P_w^2}{P_c^2 - P_d^2}$	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 18 day of December, 20 15.

KCC WICHITA *Small Martin*

Witness (if any) For Company

For Commission **APR 07 2016** 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 Willard 1-26 gas well on the grounds that said well:

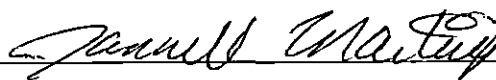
(Check one)

- 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: 12/18/15

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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.

W378

Willard 01-26

St. Francis

St. Francis

None

July-15

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2015		52	66	40	40	6	12	0	19
7/2/2015		52	66	40	40	6	12	0	19
7/3/2015		52	66	40	40	6	12	0	19
7/4/2015		52	66	40	40	6	12	0	19
7/5/2015		52	66	40	40	6	12	0	19
7/6/2015		51	73	38	38	6	12	2	19
7/7/2015		51	65	39	39	6	12	0	19
7/8/2015		51	64	38	38	6	12	16	19 turn off p u
7/9/2015		90	79	2	2	6	12	24	0
7/10/2015		173	134	0	0	6	12	14	0
7/11/2015		98	116	30	30	6	12	0	0
7/12/2015		76	98	50	50	6	12	0	0 Turned PU back on
7/13/2015		58	84	45	45	6	12	0	19
7/14/2015		52	68	42	42	6	12	0	19
7/15/2015		52	65	42	42	6	12	0	19
7/16/2015		52	65	41	41	6	12	0	19
7/17/2015		52	64	41	41	6	12	0	19
7/18/2015		51	64	41	41	6	12	0	19
7/19/2015		51	64	41	41	6	12	0	19
7/20/2015		51	63	41	41	6	12	0	19
7/21/2015		51	74	38	38	6	12	2	19
7/22/2015		50	64	40	40	6	12	0	19
7/23/2015		50	63	39	39	6	12	0	19
7/24/2015		50	63	39	39	6	12	0	19
7/25/2015		50	63	39	39	6	12	0	19
7/26/2015		50	63	39	39	6	12	0	19
7/27/2015		49	62	39	39	6	12	0	19
7/28/2015		49	62	39	39	6	12	0	19
7/29/2015		49	62	40	40	6	12	0	19
7/30/2015		49	62	40	40	6	12	0	19
7/31/2015		49	62	40	40	6	12	0	19

Total

1163

513

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Willard 01-26

St. Francis

St. Francis

None

August-15

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLS	REMARKS (Maximum length 110 characters)
8/1/2015		50	63	40	40	6	12	0	19
8/2/2015		50	63	40	40	6	12	0	19
8/3/2015		51	64	40	40	6	12	0	19
8/4/2015		50	63	40	40	6	12	0	19
8/5/2015		49	62	40	40	6	12	0	19
8/6/2015		49	62	40	40	6	12	0	19
8/7/2015		50	63	40	40	6	12	0	19
8/8/2015		52	65	40	40	6	12	0	19
8/9/2015		53	66	40	40	6	12	0	19
8/10/2015		56	69	40	40	6	12	0	19
8/11/2015		56	69	40	40	6	12	0	19
8/12/2015		56	69	40	40	6	12	0	19
8/13/2015		57	70	40	40	6	12	0	19
8/14/2015		57	70	40	40	6	12	0	19
8/15/2015		57	70	39	39	6	12	0	19
8/16/2015		58	71	39	39	6	12	0	19
8/17/2015		57	70	40	40	6	12	0	19
8/18/2015		57	70	39	39	6	12	0	19
8/19/2015		58	71	39	39	6	12	0	19
8/20/2015		57	70	39	39	6	12	0	19
8/21/2015		57	70	39	39	6	12	0	19
8/22/2015		57	70	39	39	6	12	0	19
8/23/2015		58	71	39	39	6	12	0	19
8/24/2015		57	70	39	39	6	12	0	19
8/25/2015		58	71	39	39	6	12	0	19
8/26/2015		57	70	39	39	6	12	0	19
8/27/2015		55	68	40	40	6	12	0	19
8/28/2015		55	68	39	39	6	12	0	19
8/29/2015		57	70	39	39	6	12	0	19
8/30/2015		60	73	39	39	6	12	4	19
8/31/2015		62	75	39	39	6	12	0	19

Total

1225

589

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Willard 01-26

St. Francis

St. Francis

None

September-15

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
9/1/2015		72	85	36	6	12	0	20	
9/2/2015		53	66	41	6	12	0	20	
9/3/2015		53	66	39	6	12	0	20	
9/4/2015		57	70	39	6	12	0	20	
9/5/2015		62	75	38	6	12	0	20	
9/6/2015		65	78	38	6	12	0	20	
9/7/2015		64	77	39	6	12	0	20	
9/8/2015		63	76	39	6	12	0	20	
9/9/2015		63	76	38	6	12	0	20	
9/10/2015		54	67	40	6	12	0	20	
9/11/2015		58	71	40	6	12	0	20	
9/12/2015		59	72	39	6	12	0	20	
9/13/2015		58	71	40	6	12	0	20	
9/14/2015		59	72	40	6	12	0	20	
9/15/2015		60	73	39	6	12	0	20	
9/16/2015		61	74	38	6	12	0	20	
9/17/2015		62	75	38	6	12	0	20	
9/18/2015		62	75	39	6	12	0	20	
9/19/2015		59	72	39	6	12	0	20	
9/20/2015		56	69	39	6	12	0	20	
9/21/2015		58	71	38	6	12	0	20	
9/22/2015		59	72	36	6	12	0	20	
9/23/2015		60	73	35	6	12	0	20	
9/24/2015		60	73	35	6	12	0	20	
9/25/2015		60	73	35	6	12	0	20	
9/26/2015		60	73	35	6	12	0	20	
9/27/2015		60	73	35	6	12	0	20	
9/28/2015		60	73	35	6	12	0	20	
9/29/2015		60	73	35	6	12	0	20	
9/30/2015		60	73	35	6	12	0	20	
10/1/2015		0	0	0	0	0	0	0	

Total

1132

600

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