

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

Type Test:

- Open Flow **ASD**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
6/1/2015

API No. 15  
023-20545-0000

Company Rosewood Resources, Inc.		Lease Moore		Well Number 1-16	
County Cheyenne	Location NWSW	Section 16	TWP 2S	RNG (E/W) 42W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 1/30/2004		Plug Back Total Depth 1871'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1871'	Perforations 1655'	To 1689'
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) 1885'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-1 20 15 at 2:00 (AM) <input checked="" type="checkbox"/> (PM) Taken 6-4 20 15 at 2:15 (AM) <input checked="" type="checkbox"/> (PM)		Well on Line: Started 6-4 20 15 at 2:15 (AM) <input checked="" type="checkbox"/> (PM) Taken 6-5 20 15 at 3:00 (AM) <input checked="" type="checkbox"/> (PM)			

### OBSERVED SURFACE DATA

Duration of Shut-in 96 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure pslg (Pm)	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>c</sub> ) or (P <sub>o</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>c</sub> ) or (P <sub>o</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						pslg	psia	pslg	psia		
Shut-in						190	204.4				
Flow						66	80.4			96	0

### 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>
						5		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> =

(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>c</sub> ) <sup>2</sup> - (P <sub>w</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>d</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>w</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: $P_c^2 - P_w^2$	Backpressure Curve Slope = "n" ----- 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 21 day of December, 20 15.

Witness (if any)

**KCC WILDLIFE**

*Samuel Martinez*  
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 Moore 1-16 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

**KCC WICHITA** Signature: Jannell Montoy  
**APR 07 2016** 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.

W2560            MASTER METER ID  
 Moore 1-16      MASTER METER NAME  
 West St. Francis    FIELD  
 R4                AREA  
                     EQUIPMENT  
 June-15         DATE  
 FloBoss

DATE	Line PSI	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
6/1/2015	129	129	142		0	24
6/2/2015	146	146	159		0	24
6/3/2015	177	177	190		0	24
6/4/2015	175	175	188		0	24
6/5/2015	94	94	107		0	0
6/6/2015	83	83	96		8	0
6/7/2015	78	78	91		8	0
6/8/2015	62	62	75		7	0
6/9/2015	60	60	73		7	0
6/10/2015	57	57	70		7	0
6/11/2015	56	56	69		7	0
6/12/2015	55	55	68		6	0
6/13/2015	55	55	68		5	0
6/14/2015	55	55	68		5	0
6/15/2015	55	55	68		5	0
6/16/2015	55	55	68		5	0
6/17/2015	55	55	68		5	0
6/18/2015	55	55	68		5	0
6/19/2015	67	67	80		7	2
6/20/2015	100	100	113		1	22
6/21/2015	90	90	103		5	0
6/22/2015	52	52	65		5	0
6/23/2015	53	53	66		5	0
6/24/2015	53	53	66		5	0
6/25/2015	53	53	66		5	0
6/26/2015	53	53	66		5	0
6/27/2015	53	53	66		5	0
6/28/2015	54	54	67		5	0
6/29/2015	54	54	67		5	0
6/30/2015	54	54	67		5	0
7/1/2015		0	13			0

Total

138

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W2560 MASTER METER ID  
 Moore 16 MASTER METER NAME  
 West St. Francis FIELD  
 R4 AREA  
 EQUIPMENT  
 July-15 DATE  
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DATE	Line PSI	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
7/1/2015	54	54	67		5	0
7/2/2015	54	54	67		5	0
7/3/2015	54	54	67		5	0
7/4/2015	54	54	67		5	0
7/5/2015	54	54	67		5	0
7/6/2015	54	54	67		5	2
7/7/2015	54	54	67		5	0
7/8/2015	102	102	115		5	16
7/9/2015	107	107	120		0	24
7/10/2015	120	120	133		0	14
7/11/2015	100	100	113		5	0
7/12/2015	84	84	97		7	0
7/13/2015	70	70	83		7	0
7/14/2015	54	54	67		7	0
7/15/2015	54	54	67		7	0
7/16/2015	55	55	68		7	0
7/17/2015	54	54	67		7	0
7/18/2015	53	53	66		7	0
7/19/2015	52	52	65		6	0
7/20/2015	52	52	65		6	0
7/21/2015	54	54	67		6	4
7/22/2015	53	53	66		6	0
7/23/2015	53	53	66		6	0
7/24/2015	52	52	65		6	0
7/25/2015	52	52	65		6	0
7/26/2015	52	52	65		6	0
7/27/2015	52	52	65		6	0
7/28/2015	52	52	65		6	0
7/29/2015	51	51	64		6	0
7/30/2015	51	51	64		6	0
7/31/2015	51	51	64		6	0

Total

172

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W2560 MASTER METER ID  
 Moore 116 MASTER METER NAME  
 West St. Francis FIELD  
 R4 AREA  
 EQUIPMENT  
 August-15 DATE  
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DATE	Line PSI	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
8/1/2015	52	52	65		6	0
8/2/2015	52	52	65		6	0
8/3/2015	53	53	66		6	0
8/4/2015	51	51	64		6	0
8/5/2015	51	51	64		6	0
8/6/2015	51	51	64		6	0
8/7/2015	52	52	65		6	0
8/8/2015	51	51	64		6	0
8/9/2015	51	51	64		6	0
8/10/2015	51	51	64		6	0
8/11/2015	52	52	65		6	0
8/12/2015	52	52	65		6	0
8/13/2015	52	52	65		6	0
8/14/2015	52	52	65		6	0
8/15/2015	53	53	66		6	0
8/16/2015	53	53	66		6	0
8/17/2015	52	52	65		6	0
8/18/2015	54	54	67		6	0
8/19/2015	53	53	66		6	0
8/20/2015	53	53	66		6	0
8/21/2015	53	53	66		6	0
8/22/2015	53	53	66		6	0
8/23/2015	53	53	66		6	0
8/24/2015	53	53	66		6	0
8/25/2015	55	55	68		6	0
8/26/2015	54	54	67		6	0
8/27/2015	53	53	66		6	0
8/28/2015	53	53	66		6	0
8/29/2015	54	54	67		6	0
8/30/2015	57	57	70		6	0
8/31/2015	58	58	71		6	0

Total

186

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