

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

(See Instructions on Reverse Side)

Type Test:

- Open Flow **BSI**
 Deliverability

Test Date:
6/2/2015

API No. 15
181-20567-0000

Company Rosewood Resources, Inc.		Lease Ihrig, G		Well Number 32-20	
County Sherman	Location SWNE	Section 20	TWP 7S	RNG (E/W) 39W	Acres Attributed 80
Field Goodland		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 8/24/2010		Plug Back Total Depth 1211'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.000	Set at 1211'	Perforations 1056'	To 1088'
Tubing Size NONE	Weight	Internal Diameter	Set at	Perforations	To
Type Completion (Describe) Single (VERTICLE)		Type Fluid Production Dry Gas		Pump Unit or Traveling Plunger? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1240'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-1		20 15 at 3:00		(AM) <input checked="" type="radio"/> (PM) Taken 6-2	
Well on Line: Started 6-2		20 15 at 3:10		(AM) <input checked="" type="radio"/> (PM) Taken 6-3	
				20 15 at 3:10 (AM) <input checked="" type="radio"/> (PM)	
				20 15 at 4:00 (AM) <input checked="" type="radio"/> (PM)	

OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (Inches)	Circle one: Meter 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						36	50.4				
Flow						19	33.4			24	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _p) (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
						91		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_a)² = 0.207
(P_o)² = _____

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

(P _c) ² - (P _a) ² or (P _c) ² - (P _o) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a ² 2. P _c ² - P _o 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 22 day of December, 20 15.

Witness (if any)
For Company

For Commission
Checked by

KCC WICHITA *James Martiny*

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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 lhrig, G 32-20 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: 12/22/15

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Signature: *Samuel Mattingly*
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.

W2727 WELL ID
 Ihrig 32-20 LEASE NAME
 North Goodland FIELD
 Goodland AREA
 None EQUIPMENT
 June-15 DATE
 FloBoss

DATE	Line PSI	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
6/1/2015		36	36	49	0	24 chem pump 1sec duration 4 times/mi
6/2/2015		36	36	49	0	24
6/3/2015		31	31	44	68	0 started chemical pump, 10ppm h2s at
6/4/2015		31	31	44	59	0 1.2 ppm, opened to 83mcf
6/5/2015		19	19	32	78	0 1.0ppm, opened to 118mcf
6/6/2015		23	23	36	101	0
6/7/2015		21	21	34	95	0
6/8/2015		21	21	34	93	0 1.3 ppm h2s
6/9/2015		20	20	33	91	0
6/10/2015		20	20	33	91	0 pump running, but not moving chemi
6/11/2015		19	19	32	91	0
6/12/2015		19	19	32	91	0
6/13/2015		19	19	32	90	4
6/14/2015		19	19	32	90	0
6/15/2015		19	19	32	91	0
6/16/2015		19	19	32	91	0
6/17/2015		19	19	32	91	0
6/18/2015		19	19	32	92	0 2ppm h2s
6/19/2015		19	19	32	91	0
6/20/2015		19	19	32	91	1
6/21/2015		19	19	32	91	0
6/22/2015		19	19	32	91	0
6/23/2015		19	19	32	91	0
6/24/2015		19	19	32	89	0 bp
6/25/2015		19	19	32	89	2
6/26/2015		19	19	32	91	0
6/27/2015		19	19	32	93	0
6/28/2015		19	19	32	93	0
6/29/2015		19	19	32	95	0
6/30/2015		20	20	33	97	0
7/1/2015		-13				0

Total

2505

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W2727 WELL ID
 LEASE NAME
 North Goodland FIELD
 Goodland AREA
 None EQUIPMENT
 July-14 DATE
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DATE	Line PSI	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
7/1/2014		20	20	33	97	0 chem pump 4 cycles pm, 1 second d
7/2/2014		20	20	33	97	0 7ppm h2s, pump moving 8qts instea
7/3/2014		20	20	33	96	0
7/4/2014		20	20	33	96	0
7/5/2014		20	20	33	96	0
7/6/2014		20	20	33	96	0
7/7/2014		20	20	33	96	0
7/8/2014		19	19	32	94	0
7/9/2014		19	19	32	94	0 1ppm h2s
7/10/2014		19	19	32	95	0
7/11/2014		20	20	33	92	0
7/12/2014		20	20	33	92	0
7/13/2014		20	20	33	92	0
7/14/2014		20	20	33	92	0
7/15/2014		20	20	33	87	6 38ppm, fixed ck valve on pump
7/16/2014		20	20	33	91	0 20ppm h2s
7/17/2014		20	20	33	90	0
7/18/2014		20	20	33	90	0
7/19/2014		20	20	33	90	0
7/20/2014		20	20	33	90	0
7/21/2014		20	20	33	90	1
7/22/2014		20	20	33	90	0 0ppm h2s
7/23/2014		20	20	33	87	3
7/24/2014		20	20	33	90	0
7/25/2014		21	21	34	91	0
7/26/2014		21	21	34	91	0
7/27/2014		21	21	34	91	0
7/28/2014		19	19	32	91	9
7/29/2014		19	19	32	91	0 1.2ppm h2s
7/30/2014		19	19	32	91	0
7/31/2014		19	19	32	91	1

Total

2857

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W2727 WELL ID
 11111111111111111111 LEASE NAME
 North Goodland FIELD
 Goodland AREA
 None EQUIPMENT
 August-14 DATE
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DATE	Line PSI	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
8/1/2014	5	19	32	89	2	chem pump 4 cycles pm, 1 second d
8/2/2014	5	19	32	89	0	7ppm h2s, pump moving 8qts instea
8/3/2014	5	19	32	89	0	
8/4/2014	5	19	32	91	0	
8/5/2014	5	19	32	91	0	
8/6/2014	5	19	32	91	0	2.8ppm h2s
8/7/2014	5	22	35	87	0	90ppm h2s, Terratech treated well
8/8/2014	5	27	40	0	0	
8/9/2014	5	32	45	0	0	
8/10/2014	5	34	47	0	0	opened to 30mcf, 1.5ppm h2s 7 hour
8/11/2014	8	32	45	29	0	60 ppm h2s at well
8/12/2014	8	26	39	77	0	80 ppm h2s at well, 2.5ppm at meter
8/13/2014	6	22	35	89	0	90 ppm at well
8/14/2014	5	22	35	87	0	90 ppm at well
8/15/2014	5	21	34	86	0	
8/16/2014	5	21	34	85	0	
8/17/2014	5	21	34	85	0	105ppm h2s at well, 2.5 at meter
8/18/2014	5	21	34	85	0	
8/19/2014	5	21	34	85	0	
8/20/2014	5	21	34	85	0	
8/21/2014	5	21	34	85	0	
8/22/2014	5	20	33	83	0	
8/23/2014	5	20	33	83	0	
8/24/2014	5	20	33	83	0	
8/25/2014	5	20	33	83	0	
8/26/2014	5	20	33	83	0	
8/27/2014	5	20	33	83	0	
8/28/2014	5	20	33	83	0	
8/29/2014	5	20	33	83	0	
8/30/2014	5	20	33	83	0	
8/31/2014	5	20	33	83	0	

Total

2335

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