

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **DSI**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
7/9/2015

API No. 15
023-20629-0000

Company Rosewood Resources, Inc.		Lease R. Walter		Well Number 21-21	
County Cheyenne	Location NENW/4	Section 21	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/22/2005		Plug Back Total Depth 1518'		Packer Set at	
Casing Size 2 7/8"	Weight 6.5#	Internal Diameter 2.441	Set at 1518'	Perforations 1371'	To 1403'
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 flowing	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1403'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 7-9 20 15 at 10:35 <input checked="" type="checkbox"/> (AM) (PM) Taken 7-10 20 15 at 10:50 <input checked="" type="checkbox"/> (AM) (PM)		Well on Line: Started 7-10 20 15 at 10:50 <input checked="" type="checkbox"/> (AM) (PM) Taken 7-11 20 15 at 11:35 <input checked="" type="checkbox"/> (AM) (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 _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						104	118.4			24	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _b) (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 _t	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						15		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_s)² = 0.207
(P_d)² = _____

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

(P _c) ² - (P _s) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _s 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: $P_c^2 - P_w^2$	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

James Montoy
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 R. Walter 21-21 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

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Signature: _____

Title: _____

Jamell Maston

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.

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R. Walter 21-21

St. Francis

St. Francis

None

July-15

DATE	Casing		MCF	HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC		DOWN		
7/1/2015	88	104		15	0	
7/2/2015	88	104		15	0	
7/3/2015	88	103		15	0	
7/4/2015	88	103		15	0	
7/5/2015	88	103		14	0	
7/6/2015	96	106		15	2	
7/7/2015	88	104		15	0	
7/8/2015	88	103		14	16	
7/9/2015	90	149		0	24	
7/10/2015	173	170		0	14	
7/11/2015	144	146		15	0	
7/12/2015	137	140		19	0	
7/13/2015	121	136		19	0	
7/14/2015	118	132		19	0	
7/15/2015	118	130		18	0	
7/16/2015	118	126		18	0	
7/17/2015	118	123		18	0	
7/18/2015	119	120		17	0	
7/19/2015	119	117		17	0	
7/20/2015	118	113		16	0	
7/21/2015	101	113		15	2	
7/22/2015	93	110		16	0	
7/23/2015	93	107		15	0	
7/24/2015	92	105		15	0	
7/25/2015	92	104		15	0	
7/26/2015	92	104		15	0	
7/27/2015	86	104		15	0	
7/28/2015	89	103		15	0	
7/29/2015	89	103		15	0	
7/30/2015	89	103		15	0	
7/31/2015	89	103		15	0	

Total

460

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R. Walter 21-21

St. Francis

St. Francis

None

August-15

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
8/1/2015	90	103		15	0
8/2/2015	89	102		15	0
8/3/2015	90	103		14	0
8/4/2015	89	102		15	0
8/5/2015	89	102		15	0
8/6/2015	89	102		15	0
8/7/2015	89	102		14	0
8/8/2015	89	102		14	0
8/9/2015	88	101		14	0
8/10/2015	88	101		14	0
8/11/2015	88	101		14	0
8/12/2015	88	101		14	0
8/13/2015	88	101		14	0
8/14/2015	88	101		14	0
8/15/2015	88	101		14	0
8/16/2015	88	101		14	0
8/17/2015	88	101		14	0
8/18/2015	88	101		14	0
8/19/2015	88	101		14	0
8/20/2015	88	101		14	0
8/21/2015	88	101		14	0
8/22/2015	88	101		14	0
8/23/2015	88	101		14	0
8/24/2015	88	101		14	0
8/25/2015	88	101		14	0
8/26/2015	88	101		14	0
8/27/2015	88	101		14	0
8/28/2015	87	100		14	0
8/29/2015	87	100		14	0
8/30/2015	88	101		14	4
8/31/2015	88	101		14	0

Total

439

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R. Walter 2/1/21

St. Francis

St. Francis

None

September-15

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
9/1/2015	102	115		14	0
9/2/2015	96	109		16	0
9/3/2015	91	104		15	0
9/4/2015	88	101		14	0
9/5/2015	87	100		14	0
9/6/2015	87	100		14	0
9/7/2015	86	99		14	0
9/8/2015	86	99		14	0
9/9/2015	93	106		14	0
9/10/2015	89	102		15	0
9/11/2015	87	100		14	0
9/12/2015	86	99		14	0
9/13/2015	86	99		14	0
9/14/2015	86	99		14	0
9/15/2015	86	99		14	0
9/16/2015	86	99		14	0
9/17/2015	86	99		14	0
9/18/2015	86	99		14	0
9/19/2015	86	99		14	0
9/20/2015	86	99		14	0
9/21/2015	86	99		14	0
9/22/2015	86	99		14	0
9/23/2015	86	99		14	0
9/24/2015	86	99		14	0
9/25/2015	86	99		14	0
9/26/2015	86	99		14	0
9/27/2015	86	99		14	0
9/28/2015	86	99		14	0
9/29/2015	86	99		14	0
9/30/2015	86	99		14	0
10/1/2015	0	0		0	0

Total

424

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