

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

(See Instructions on Reverse Side)

- Open Flow **ASD**  
 Deliverability

Test Date:  
6/22/14

API No. 15  
023-20790-0000

Company Rosewood Resources, Inc.		Lease Zweygardt		Well Number 24-12	
County Cheyenne	Location SESW	Section 12	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 8/3/2007		Plug Back Total Depth		Packer Set at	
Casing Size 7"	Weight 23#	Internal Diameter 6.366	Set at 1338'	Perforations 1340'	To 1390'
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? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1393'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-7		20 14 at 9:00		(AM) (PM) Taken 6-13	
Well on Line: Started 6-22		20 14 at 9:15		(AM) (PM) Taken 6-23	
		20 14 at 9:15		(AM) (PM) Taken 6-23	
		20 14 at 10:00		(AM) (PM) Taken 6-23	

### OBSERVED SURFACE DATA

Duration of Shut-in 360 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter or Prover Pressure psig (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>i</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						228	242.4				
Flow						54	68.4			360	

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>p</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>
						13		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>2</sub>)<sup>2</sup> = 0.207  
(P<sub>1</sub>)<sup>2</sup> =

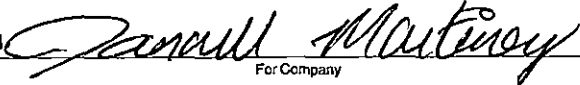
(P<sub>c</sub>)<sup>2</sup> = \_\_\_\_\_ : (P<sub>w</sub>)<sup>2</sup> = \_\_\_\_\_ : P<sub>g</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ :

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>g</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</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>a</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>d</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: $\left[ \frac{P_c^2 - P_w^2}{P_c^2 - P_w^2} \right]$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG $\left[ \right]$	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 12 day of December, 20 14.

Received  
KANSAS CORPORATION COMMISSION

  
 For Company

**FEB 25 2015**  
 CONSERVATION DIVISION  
 WICHITA, KS

Witness (if any) \_\_\_\_\_  
 For Commission \_\_\_\_\_  
 Checked by \_\_\_\_\_

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 Zweygardt 24-12 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: 12/12/14

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FEB 25 2015

CONSERVATION DIVISION  
WICHITA, KS

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

*James Mortuary*  
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.

W2447

Zweygardt 24-12

St. Francis

St. Francis

Flow

June-174

DATE	Casing		MCF	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	STATIC				
6/1/2013	54	67		13	0	
6/2/2013	60	73		12	0	
6/3/2013	59	72		13	0	
6/4/2013	73	86		11	0	
6/5/2013	49	62		14	0	
6/6/2013	50	63		13	0	
6/7/2013	52	65		13	9	
6/8/2013	188	201		5	24	
6/9/2013	191	204		0	24	
6/10/2013	196	209		0	24	
6/11/2013	197	210		0	24	
6/12/2013	202	215		0	24	
6/13/2013	228	241		0	24	
6/14/2013	229	242		0	24	
6/15/2013	230	243		0	24	
6/16/2013	230	243		0	24	
6/17/2013	230	243		0	24	
6/18/2013	231	244		0	24	
6/19/2013	226	239		0	24	
6/20/2013	226	239		0	24	
6/21/2013	228	241		0	24	
6/22/2013	228	241		0	24	
6/23/2013	124	137		16	5	
6/24/2013	111	124		19	0	
6/25/2013	103	116		14	0	
6/26/2013	90	103		14	0	
6/27/2013	83	96		15	0	
6/28/2013	66	79		16	0	
6/29/2013	64	77		15	0	
6/30/2013	55	68		14	0	
7/1/2013					0	

Total

217

0

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FEB 25 2015

CONSERVATION DIVISION  
WICHITA, KS

W2447  
 Zwegardt 24-12  
 St. Francis  
 St. Francis  
 Flow  
 July-14

DATE	Casing			HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF			
7/1/2014	51	64	14	14	0	
7/2/2014	51	64	14	14	0	
7/3/2014	54	67	14	14	0	
7/4/2014	54	67	14	14	0	
7/5/2014	56	69	14	14	0	
7/6/2014	56	59	14	14	0	
7/7/2014	72	85	12	12	0	
7/8/2014	57	70	13	13	0	
7/9/2014	57	70	13	13	0	
7/10/2014	57	70	13	13	0	
7/11/2014	59	72	13	13	0	
7/12/2014	60	73	13	13	0	
7/13/2014	61	74	13	13	0	
7/14/2014	70	83	13	13	0	
7/15/2014	51	64	13	13	0	
7/16/2014	51	64	13	13	0	
7/17/2014	54	67	13	13	0	
7/18/2014	54	67	13	13	0	
7/19/2014	54	67	13	13	0	
7/20/2014	52	65	13	13	0	
7/21/2014	77	90	12	12	0	
7/22/2014	176	189	4	4	22	
7/23/2014	81	94	1	1	7	
7/24/2014	65	78	19	19	3	
7/25/2014	63	76	12	12	4	
7/26/2014	51	64	14	14	0	
7/27/2014	52	65	13	13	0	
7/28/2014	55	68	13	13	0	
7/29/2014	58	71	13	13	0	
7/30/2014	53	66	13	13	0	
7/31/2014	56	69	12	12	0	

Total 391 0

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CONSERVATION DIVISION  
 WICHITA, KS

W2447  
 Zweygart 24-12  
 St. Francis  
 St. Francis  
 Flow  
 August-14

DATE	Casing		MCF	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	STATIC				
8/1/2014	54	67		12	0	
8/2/2014	54	67		12	0	
8/3/2014	55	68		12	0	
8/4/2014	54	67		12	0	
8/5/2014	54	67		12	0	
8/6/2014	54	67		12	0	
8/7/2014	55	68		12	0	
8/8/2014	56	69		12	0	
8/9/2014	56	69		12	0	
8/10/2014	58	71		12	0	
8/11/2014	56	69		12	0	
8/12/2014	53	66		12	0	
8/13/2014	51	64		12	0	
8/14/2014	53	66		12	0	
8/15/2014	59	72		11	3	
8/16/2014	56	69		12	0	
8/17/2014	56	69		12	0	
8/18/2014	58	71		12	0	
8/19/2014	63	76		11	2	
8/20/2014	63	76		11	0	
8/21/2014	67	70		12	0	
8/22/2014	61	74		12	0	
8/23/2014	47	60		12	0	
8/24/2014	53	66		12	0	
8/25/2014	76	89		11	0	
8/26/2014	60	73		12	0	
8/27/2014	63	76		12	0	
8/28/2014	63	76		12	0	
8/29/2014	51	64		11	5	
8/30/2014	51	64		12	0	
8/31/2014	64	77		12	0	

Total 367 0

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