

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **ASL**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
7/18/2013

API No. 15  
023-21250-0000

Company Rosewood Resources, Inc.		Lease Zimbelman		Well Number 24-24	
County Cheyenne	Location SESW	Section 24	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/2/2010		Plug Back Total Depth 1485'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1523'	Perforations 1346'	To 1376'
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="checkbox"/> No <input type="checkbox"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1535'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 7-17		20 13 at 6:15		(AM) (PM) Taken 7-18	
Well on Line: Started 7-18		20 13 at 6:25		(AM) (PM) Taken 7-19	

### OBSERVED SURFACE DATA

Duration of Shut-in **24** Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (P <sub>m</sub> )	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>t</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						188	202.4				
Flow						63	77.4			24	

### 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>
						20		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(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>a</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</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>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: $\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	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 21 day of November, 20 13.

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

CONSERVATION DIVISION  
WICHITA, KS

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 Zimbelman 24-24 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: 11/21/13

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Signature: Jannell Martiny

Title: Production Assistant

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WICHITA, KS

**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.

W2735  
 Zimbelman 24-24  
 St. Francis  
 St. Francis  
 Flow  
 July-13  
 FloBoss

DATE	Casing PSI	STATIC MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2013	55	68	7			
7/2/2013	58	71	7			
7/3/2013	55	68	7			
7/4/2013	58	71	7			
7/5/2013	58	71	7			
7/6/2013	58	71	7			
7/7/2013	70	83	7			
7/8/2013	68	81	7			
7/9/2013	65	78	7			
7/10/2013	63	76	7			
7/11/2013	66	79	7			
7/12/2013	72	85	7			
7/13/2013	75	88	7		2.5	
7/14/2013	78	91	7			
7/15/2013	58	71	7			
7/16/2013	54	67	7			
7/17/2013	63	65	7			
7/18/2013	188	94	0		24	si for state test - cp 63 reopened - cp 188
7/19/2013	70	83	9			
7/20/2013	74	87	8			
7/21/2013	76	89	8			
7/22/2013	71	84	8			
7/23/2013	69	82	8			
7/24/2013	76	89	8			
7/25/2013	79	92	7			
7/26/2013	68	81	7	6	12	22 started pu
7/27/2013	58	71	12	6	24	43 bucket test 4 min
7/28/2013	63	76	20	6	24	42
7/29/2013	65	78	22	6	24	42
7/30/2013	94	107	29	6	12	3.5 22 pu off hfp
7/31/2013	117	130	13	6	0	5.5 0

Total

278

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 WICHITA, KS

W2735  
 Zimbelman 24-24  
 St. Francis  
 St. Francis  
 Flow  
 August-13  
 FloBoss

DATE	Casing PSI	STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2013	88	101	17	6			
8/2/2013	82	95	25	6			
8/3/2013	76	89	19	6			
8/4/2013	77	90	18	6			
8/5/2013	68	81	17	6			
8/6/2013	60	73	17	6			
8/7/2013	54	67	16	6	12		24 restart pu
8/8/2013	67	80	25	6	24		42
8/9/2013	73	86	33	6	24		47
8/10/2013	76	89	38	6	24		46
8/11/2013	80	93	41	6	24		45
8/12/2013	70	83	44	6	24		47 turned pu off, no water
8/13/2013	65	78	32	6	12		22 restart pu put on auto
8/14/2013	73	86	38	6	12		21
8/15/2013	66	79	32	6	12	0.5	21 4 min bt greased
8/16/2013	73	86	27	6	12		20
8/17/2013	72	85	25	6	12		22
8/18/2013	72	85	24	6	12		21
8/19/2013	73	86	23	6	6	1.5	11 pu off hfp
8/20/2013	90	103	20	6	0	1	0
8/21/2013	89	102	14	6	0		0
8/22/2013	90	13	3	6	0	5	0
8/23/2013	82	93	17	6	0		0
8/24/2013	86	99	24	6	0	1	0
8/25/2013	90	103	15	6	0	1	0
8/26/2013	62	75	20	6	0		0
8/27/2013	57	70	20	6	6		11 restarted
8/28/2013	56	69	18	6	12		22
8/29/2013	92	105	18	6	6	1	11 pu off hfp
8/30/2013	84	97	9	6	0		0
8/31/2013	89	102	16	6	0		0

Total

705

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 WICHITA, KS

W2735  
 Zimbelman 24-24  
 St. Francis  
 St. Francis  
 Flow  
 September-13  
 FloBoss

DATE	Casing PSI	STATIC MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
9/1/2013	108	121	14		1	
9/2/2013	94	107	9			
9/3/2013	162	175	13		22	
9/4/2013	176	189	1		10	
9/5/2013	115	128	0			
9/6/2013	89	103	0		1	
9/7/2013	95	108	12			
9/8/2013	93	105	12			
9/9/2013	95	108	12			
9/10/2013	98	111	10		2	
9/11/2013	143	156	8			
9/12/2013	174	187	3		18	
9/13/2013	91	104	6		4	
9/14/2013	81	94	21		2	
9/15/2013	88	101	21			
9/16/2013	66	79	21			
9/17/2013	59	72	18			
9/18/2013	57	70	18			
9/19/2013	52	65	16	6	6	10 restart pu
9/20/2013	39	52	16	6	12	21
9/21/2013	43	56	15	6	12	20 treated well
9/22/2013	65	78	15	6	12	21
9/23/2013	68	81	15	6	0	0 not running on auto
9/24/2013	95	108	15	6	0	4 0 pu off hfp
9/25/2013	89	102	10	6	0	0
9/26/2013	75	88	17	6	0	0
9/27/2013	57	70	15	6	6	10 restart pu
9/28/2013	70	83	22	6	12	21
9/29/2013	75	88	32	6	12	23
9/30/2013	82	95	38	6	12	22
10/1/2013						

Total

425

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