

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **AST**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
6/20/2013

API No. 15
023-20562-0000

Company Rosewood Resources, Inc.		Lease Zimbelman		Well Number 2-24	
County Cheyenne	Location SWSW	Section 24	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 9-10-2004		Plug Back Total Depth 1536'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1536'	Perforations 1332'	To 1370'
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? <input checked="" type="radio"/> No Pumping Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1370'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-19		20 13 at 9:05		(AM) (PM) Taken 6-20	
Well on Line: Started 6-20		20 13 at 9:20		(AM) (PM) Taken 6-21	
				20 13 at 9:20 (AM) (PM)	
				20 13 at 10:05 (AM) (PM)	

OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (Inches)	Circle one: Meter Prover Pressure psig (P _m)	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						135	149.4				
Flow						55	69.4			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 _{tt}	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						33		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_a)² = 0.207
(P_d)² = _____

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

(P _c) ² - (P _a) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a 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: $\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2}$	Backpressure Curve Slope = "n" or Assigned Standard Slope	n x LOG $\left[\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	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 on 21 day of November, 20 13.

KANSAS CORPORATION COMMISSION

Witness (if any)

DEC 26 2013

For Company

For Commission

CONSERVATION DIVISION
WICHITA, KS

Checked by

Samuel Martiney

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 2-24 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: _____



DEC 26 2013

Title: Production Assistant

CONSERVATION DIVISION
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.

W381
 Zimbelman 02-24
 St. Francis
 St. Francis
 None
 June-13

DATE	Casing PSI	STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
6/1/2013	47	60	32	6	17	27	
6/2/2013	51	64	35	6	17	26	
6/3/2013	49	62	38	6	17	27	
6/4/2013	48	61	40	6	17	22	
6/5/2013	61	74	42	6	17	28	
6/6/2013	66	79	43	6	17	26	4.75 min bt
6/7/2013	52	65	45	6	17	25	
6/8/2013	52	65	45	6	17	22	
6/9/2013	54	67	46	6	17	21	
6/10/2013	55	68	46	6	17	2	20
6/11/2013	76	89	42	6	6	1	12 chg timer to 12 hrs on - pu off hfp
6/12/2013	74	87	41	6	0	0	
6/13/2013	55	68	39	6	6	12	restart pu
6/14/2013	59	72	36	6	12	27	
6/15/2013	60	73	34	6	12	26	
6/16/2013	60	73	33	6	12	25	
6/17/2013	57	70	32	6	6	10	pu off
6/18/2013	50	63	31	6	0	0	
6/19/2013	44	57	31	6	0	0	si for state test - cp 48
6/20/2013	48	61	0	6	6	24	10 reopened - cp 135
6/21/2013	56	69	51	6	12	19	4.5 min bt greased
6/22/2013	77	90	47	6	12	22	
6/23/2013	81	94	44	6	6	10	pu off hfp
6/24/2013	77	90	43	6	0	0	calibrated meter
6/25/2013	80	93	37	6	0	0	
6/26/2013	79	92	36	6	0	0	
6/27/2013	72	85	35	6	12	10	restart pu
6/28/2013	65	78	33	6	12	14	
6/29/2013	52	65	32	6	12	19	
6/30/2013	52	65	31	6	12	18	
7/1/2013							

Total

1120

478

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 WICHITA, KS

W381
 Zimbelman 02-24
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 St. Francis
 None
 July-13

DATE	Casing			HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	STATIC MCF	SPM			
7/1/2013	53	66	31	6	12	19
7/2/2013	53	66	30	6	12	18 4.75 min bt
7/3/2013	55	68	33	6	12	17
7/4/2013	56	69	32	6	12	20
7/5/2013	56	69	32	6	12	16
7/6/2013	57	70	44	6	12	18
7/7/2013	68	81	45	6	12	17
7/8/2013	67	80	45	6	12	20
7/9/2013	67	80	46	6	12	19
7/10/2013	58	71	48	6	12	21
7/11/2013	60	73	47	6	12	20
7/12/2013	66	79	47	6	6	9 shut pu off hfp treated well
7/13/2013	74	87	40	6	0 2.5	0
7/14/2013	77	90	39	6	0	0
7/15/2013	56	69	38	6	6	10 started pu
7/16/2013	55	68	34	6	12	20
7/17/2013	51	64	33	6	6	9 pu off no water
7/18/2013	78	91	38	6	0	0
7/19/2013	70	83	34	6	0	0
7/20/2013	73	86	29	6	0	0
7/21/2013	75	88	29	6	0	0
7/22/2013	71	84	28	6	0	0
7/23/2013	63	76	28	6	6	9
7/24/2013	72	85	31	6	12	20 4.25 min bt
7/25/2013	78	91	35	6	6	9 pu off hfp
7/26/2013	59	72	33	6	6	10 restarted pu
7/27/2013	55	68	35	6	12	20
7/28/2013	57	70	39	6	12	21
7/29/2013	56	69	41	6	12	20
7/30/2013	55	68	42	6	6 3.5	9 pu off hfp
7/31/2013	85	98	27	6	0 5.5	0

Total

1133

371

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 WICHITA, KS

W381

Zimbelman 02-24

St. Francis

St. Francis

None

August-13

DATE	Casing PSI	STATIC MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2013	77	90	38	6		
8/2/2013	77	90	35	6		
8/3/2013	71	84	34	6		
8/4/2013	73	86	30	6		
8/5/2013	66	79	29	6		
8/6/2013	53	66	28	6	6	10 restart pu
8/7/2013	50	63	28	6	12	20
8/8/2013	53	66	27	6	12	21
8/9/2013	58	71	26	6	6	10 not pumping - restarted
8/10/2013	54	67	30	6	12	21
8/11/2013	52	65	33	6	12	20
8/12/2013	53	66	29	6	12	20 not pumping - restarted, timer bad?
8/13/2013	52	65	32	6	12	19
8/14/2013	53	66	36	6	12	19 4.5 min bt greased
8/15/2013	53	66	38	6	12	0.5 21
8/16/2013	65	78	40	6	12	20
8/17/2013	64	77	42	6	12	24
8/18/2013	64	77	42	6	12	23
8/19/2013	66	79	42	6	6	1.5 10
8/20/2013	77	90	38	6	0	1 0
8/21/2013	86	99	36	6	0	0
8/22/2013	89	102	35	6	0	5 0
8/23/2013	73	86	34	6	0	0
8/24/2013	82	95	33	6	0	1 0
8/25/2013	88	101	29	6	0	1 0
8/26/2013	54	67	29	6	6	10 started pumping unit
8/27/2013	50	63	28	6	6	10 restart pu, timer still bad?
8/28/2013	50	63	30	6	12	21
8/29/2013	77	90	34	6	6	1 10 pu off hfp
8/30/2013	85	98	30	6	0	0
8/31/2013	86	99	29	6	0	0

Total

1024

309

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