

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

(See Instructions on Reverse Side)

- Open Flow **AST**
 Deliverability

Test Date:
7/9/2015

API No. 15
023-21268-0000

Company Rosewood Resources, Inc.		Lease Zimbelman		Well Number 23-24	
County Cheyenne	Location NESW	Section 24	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/1/2010		Plug Back Total Depth 1461'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1499'	Perforations 1304'	To 1334'
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) 1510'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 7-9		20 15 at 6:25		(AM) (PM) Taken 7-10	
Well on Line: Started 7-10		20 15 at 6:35		(AM) (PM) Taken 7-11	
				20 15 at 6:35	
				(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						172	186.4				
Flow						46	60.4			24	

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 (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						2		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 0.207
(P_g)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: $\left[\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	Backpressure Curve Slope = "n" ----- 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 (Mcf/d)

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 18 day of December, 20 15.

Witness (if any)

KCC WICHITA

For Company

For Commission

APR 07 2016

Checked by

RECEIVED

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 23-24 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: 12/18/15

KCC WICHITA
APR 07 2016
RECEIVED

Signature: *Jannet Martiny*
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.

W2747

Zimbelman 2015-24

St. Francis

St. Francis

Flow

July-15

FloBoss

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2015		48	61	2				0	
7/2/2015		48	61	2				0	
7/3/2015		48	61	2				0	
7/4/2015		48	61	2				0	
7/5/2015		48	61	2				0	
7/6/2015		47	60	2				2	
7/7/2015		47	60	2				0	
7/8/2015		47	60	2				16	
7/9/2015		47	60	0				24	
7/10/2015		172	185	0				14	
7/11/2015		104	117	6				0	
7/12/2015		74	77	2.4				0	
7/13/2015		56	69	2				0	
7/14/2015		48	61	2				0	
7/15/2015		49	62	2				0	
7/16/2015		48	61	2				0	
7/17/2015		48	61	2				0	
7/18/2015		47	60	2				0	
7/19/2015		46	59	2				0	
7/20/2015		46	59	2				0	
7/21/2015		46	59	2				2	
7/22/2015		51	64	2				0	
7/23/2015		46	59	2				0	
7/24/2015		46	59	2				0	
7/25/2015		46	59	2				0	
7/26/2015		46	59	2				0	
7/27/2015		46	59	2				0	
7/28/2015		45	58	2				0	
7/29/2015		45	58	2				0	
7/30/2015		46	59	2				0	
7/31/2015		46	59	2				0	

Total

62.4

0

KCC WICHITA

APR 07 2016

RECEIVED

W2747

Zimclm012324

St. Francis

St. Francis

Flow

August-15

FloBoss

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2015		47	60		2			0	
8/2/2015		48	61		2			0	
8/3/2015		46	59		2			0	
8/4/2015		46	59		2			0	
8/5/2015		46	59		2			0	
8/6/2015		46	59		2			0	
8/7/2015		46	59		2			0	
8/8/2015		47	60		2			0	
8/9/2015		48	61		2			0	
8/10/2015		50	63		2			0	
8/11/2015		51	64		2			0	
8/12/2015		51	64		2			0	
8/13/2015		51	64		2			0	
8/14/2015		51	64		2			0	
8/15/2015		52	65		2			0	
8/16/2015		53	66		2			0	
8/17/2015		53	66		2			0	
8/18/2015		52	65		2			0	
8/19/2015		52	65		2			0	
8/20/2015		52	65		2			0	
8/21/2015		52	65		2			0	
8/22/2015		52	65		2			0	
8/23/2015		52	65		2			0	
8/24/2015		51	64		2			0	
8/25/2015		55	68		2			0	
8/26/2015		55	68		2			0	
8/27/2015		55	68		2			0	
8/28/2015		55	68		2			0	
8/29/2015		55	68		2			0	
8/30/2015		55	68		2			4	
8/31/2015		55	68		2			0	

Total

62

0

KCC WICHITA

APR 07 2016

RECEIVED

W2747

Zimbelman 23-24

St. Francis

St. Francis

Flow

September-15

FloBoss

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
9/1/2015				13				0	
9/2/2015		47	60		2			0	
9/3/2015		48	61		2			0	
9/4/2015		50	63		2			0	
9/5/2015		59	72		2			0	
9/6/2015		59	72		2			0	
9/7/2015		56	69		2			0	
9/8/2015		56	69		2			0	
9/9/2015		49	62		2			0	
9/10/2015		49	62		2			0	
9/11/2015		49	62		2			0	
9/12/2015		49	62		2			0	
9/13/2015		49	62		2			0	
9/14/2015		49	62		2			0	
9/15/2015		49	62		2			0	
9/16/2015		49	62		2			0	
9/17/2015		49	62		2			0	
9/18/2015		49	62		2			0	
9/19/2015		49	62		2			0	
9/20/2015		49	62		2			0	
9/21/2015		49	62		2			0	
9/22/2015		49	62		2			0	
9/23/2015		49	62		2			0	
9/24/2015		49	62		2			0	
9/25/2015		49	62		2			0	
9/26/2015		49	62		2			0	
9/27/2015		49	62		2			0	
9/28/2015		49	62		2			0	
9/29/2015		49	62		2			0	
9/30/2015		49	62		2			0	
10/1/2015				13				0	

Total

58

0

KCC WICHITA
APR 07 2016
RECEIVED