

KANSAS CORPORATION COMMISSION

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **ESI**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
6/22/14

API No. 15 **00-00**
023-21262-~~1190~~

Company Rosewood Resources, Inc.		Lease Zweygardt		Well Number 31-24	
County Cheyenne	Location NWNE	Section 24	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/12/2010		Plug Back Total Depth 1416'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1456'	Perforations 1192'	To 1222'
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) 1470'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in <u>6-7</u> 20 <u>14</u> at <u>5:45</u> (AM) <input checked="" type="checkbox"/> (PM) Taken <u>6-11</u> 20 <u>14</u> at <u>6:00</u> (AM) <input checked="" type="checkbox"/> (PM)					
Well on Line: Started <u>6-22</u> 20 <u>14</u> at <u>6:00</u> (AM) <input checked="" type="checkbox"/> (PM) Taken <u>6-23</u> 20 <u>14</u> at <u>6:25</u> (AM) <input checked="" type="checkbox"/> (PM)					

OBSERVED SURFACE DATA

Duration of Shut-in 360 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 _f) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _f) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						222	236.4				
Flow						54	68.4			360	

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
						12		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = _____ : (P_w)² = _____ : P_d = _____ % (P_c - 14.4) + 14.4 = _____ : (P_o)² = 0.207
(P_o)² = _____

(P _c) ² - (P _s) ² or (P _c) ² - (P _o) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _o 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: $\left[\frac{P_c^2 - P_w^2}{P_c^2 - P_o^2} \right]$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG $\left[\frac{P_c^2 - P_w^2}{P_c^2 - P_o^2} \right]$	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 this the 12 day of December, 20 14.

Received
KANSAS CORPORATION COMMISSION
Witness (if any) _____ For Company

FEB 25 2015

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 31-24 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: 12/12/14

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KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
WICHITA, KS

Signature: *Janell Motley*

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.

W2743

Zweygardt 31-24

St. Francis

St. Francis

Flow

June-13th

FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
6/1/2013	54	67	14	0	
6/2/2013	59	72	14	0	
6/3/2013	78	91	14	0	
6/4/2013	68	81	14	0	
6/5/2013	50	63	14	0	
6/6/2013	51	64	13	0	
6/7/2013	176	189	7	9	
6/8/2013	190	203	0	24	
6/9/2013	202	215	0	24	
6/10/2013	214	227	0	24	
6/11/2013	222	235	0	24	
6/12/2013	227	240	0	24	
6/13/2013	229	242	0	24	
6/14/2013	230	243	0	24	
6/15/2013	230	243	0	24	
6/16/2013	231	244	0	24	
6/17/2013	232	245	0	24	
6/18/2013	231	244	0	24	
6/19/2013	226	239	0	24	
6/20/2013	224	237	0	24	
6/21/2013	222	235	0	24	
6/22/2013	222	235	0	24	
6/23/2013	132	145	21	5	
6/24/2013	113	126	33	0	
6/25/2013	106	119	22	0	
6/26/2013	92	105	19	0	
6/27/2013	86	99	19	0	
6/28/2013	55	68	18	0	
6/29/2013	54	67	16	0	
6/30/2013	55	68	16	0	
7/1/2013				0	

Total

254

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FEB 25 2015

CONSERVATION DIVISION
WICHITA, KS

W2743
 Zwegardt 31-24
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 Flow
 July-14
 FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
7/1/2014	55	68		15	0
7/2/2014	56	69		15	0
7/3/2014	56	69		14	0
7/4/2014	56	69		14	0
7/5/2014	57	70		14	0
7/6/2014	56	69		14	0
7/7/2014	56	69		14	0
7/8/2014	56	69		14	0
7/9/2014	58	71		14	0
7/10/2014	59	72		13	0
7/11/2014	61	74		13	0
7/12/2014	60	73		13	0
7/13/2014	61	74		13	0
7/14/2014	88	101		13	0
7/15/2014	51	64		13	0
7/16/2014	53	66		12	0
7/17/2014	54	67		12	0
7/18/2014	54	67		12	0
7/19/2014	50	63		12	0
7/20/2014	53	66		12	0
7/21/2014	136	149		12	0
7/22/2014	135	148		3	22
7/23/2014	77	90		17	7
7/24/2014	61	74		14	3
7/25/2014	51	64		12	4
7/26/2014	51	64		12	0
7/27/2014	51	64		12	0
7/28/2014	52	65		12	0
7/29/2014	51	64		12	0
7/30/2014	53	66		12	0
7/31/2014	55	68		12	0

Total

396

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CONSERVATION DIVISION
 WICHITA, KS

W2743
 Zwegardt 31-24
 St. Francis
 St. Francis
 Flow
 August-14
 FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
8/1/2014	40	53		12	0
8/2/2014	39	52		12	0
8/3/2014	52	65		12	0
8/4/2014	52	65		12	0
8/5/2014	53	66		12	0
8/6/2014	54	67		12	0
8/7/2014	54	67		11	0
8/8/2014	51	64		11	0
8/9/2014	57	70		11	0
8/10/2014	57	70		11	0
8/11/2014	58	71		11	0
8/12/2014	52	65		11	0
8/13/2014	39	52		11	0
8/14/2014	52	65		11	0
8/15/2014	58	71		11	3
8/16/2014	57	70		11	0
8/17/2014	58	71		11	0
8/18/2014	57	70		11	0
8/19/2014	65	78		11	2
8/20/2014	55	68		11	0
8/21/2014	55	68		11	0
8/22/2014	58	71		11	0
8/23/2014	51	64		11	0
8/24/2014	53	66		11	0
8/25/2014	80	93		11	0
8/26/2014	54	67		11	0
8/27/2014	57	70		11	0
8/28/2014	116	129		11	0
8/29/2014	37	50		11	5
8/30/2014	51	64		11	0
8/31/2014	64	77		11	0

Total

347

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FEB 25 2015
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