

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **AST**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
6/22/14

API No. 15
023-21265-0000

Company Rosewood Resources, Inc.		Lease Zweygardt		Well Number 33-19	
County Cheyenne	Location NWSE	Section 19	TWP 3S	RNG (E/W) 40W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 9/28/2010		Plug Back Total Depth 1507'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1546'	Perforations 1322'	To 1352'
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) 1560'		Pressure Taps Flange		Gas Gravity - G _g .6	
Pressure Buildup: Shut in 6-7 20 14 at 6:00 (AM) (PM) Taken 6-14 20 14 at 6:15 (AM) (PM)		Well on Line: Started 6-22 20 14 at 6:15 (AM) (PM) Taken 6-23 20 14 at 6:40 (AM) (PM)			

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 ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P _i) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _i) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						230	244.4				
Flow						62	76.4			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
						49		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_a)² = 0.207
(P_o)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" ----- 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 the 12 day of December, 20 14.

Received
KANSAS CORPORATION COMMISSION

Januel Martiny
For Company

Witness (if any)

FEB 25 2015

For Commission

Checked by

CONSERVATION DIVISION
WICHITA, KS

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 33-19 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

Received
KANSAS CORPORATION COMMISSION
FEB 25 2015
CONSERVATION DIVISION
WICHITA, KS

Signature: *Samuel Martney*
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.

W2749

Zweygartd 33-19

St. Francis

St. Francis

Flow

June-13th

FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
6/1/2013	58	71	52	0	
6/2/2013	62	75	52	0	
6/3/2013	57	70	52	0	
6/4/2013	72	85	57	0	
6/5/2013	54	67	56	0	
6/6/2013	55	68	54	0	
6/7/2013	175	188	42	9	
6/8/2013	188	201	0	24	
6/9/2013	201	214	0	24	
6/10/2013	213	226	0	24	
6/11/2013	222	235	0	24	
6/12/2013	227	240	0	24	
6/13/2013	228	241	0	24	
6/14/2013	230	243	0	24	
6/15/2013	229	242	0	24	
6/16/2013	230	243	0	24	
6/17/2013	231	244	0	24	
6/18/2013	230	243	0	24	
6/19/2013	226	239	0	24	
6/20/2013	220	233	0	24	
6/21/2013	206	219	0	24	
6/22/2013	206	219	0	24	
6/23/2013	121	134	94	5	
6/24/2013	112	125	76	0	
6/25/2013	106	119	68	0	
6/26/2013	96	109	64	0	
6/27/2013	88	101	62	0	
6/28/2013	59	72	62	0	
6/29/2013	58	71	59	0	
6/30/2013	59	72	57	0	
7/1/2013				0	

Total

907

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CONSERVATION DIVISION
WICHITA, KS

W2749

Zweygart 33-19

St. Francis

St. Francis

Flow

July-14

FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
7/1/2014	59	72		57	0
7/2/2014	59	72		57	0
7/3/2014	59	72		56	0
7/4/2014	59	72		56	0
7/5/2014	60	73		56	0
7/6/2014	61	74		56	0
7/7/2014	70	83		53	0
7/8/2014	61	74		53	0
7/9/2014	62	75		53	0
7/10/2014	63	76		53	0
7/11/2014	66	79		52	0
7/12/2014	65	78		52	0
7/13/2014	65	78		52	0
7/14/2014	89	102		51	0
7/15/2014	57	70		52	0
7/16/2014	59	72		51	0
7/17/2014	59	72		51	0
7/18/2014	60	73		51	0
7/19/2014	56	69		37	0
7/20/2014	57	70		31	0
7/21/2014	135	148		30	0
7/22/2014	141	154		21	22
7/23/2014	83	96		44	7
7/24/2014	65	78		31	3
7/25/2014	56	69		36	4
7/26/2014	55	68		30	0
7/27/2014	56	69		28	0
7/28/2014	56	69		28	0
7/29/2014	56	69		26	0
7/30/2014	57	70		31	0
7/31/2014	59	72		33	0

Total

1368

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CONSERVATION DIVISION
WICHITA, KS

W2749
 Zwegardt 33-19
 St. Francis
 St. Francis
 Flow
 August-14
 FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
8/1/2014	57	70		34	0
8/2/2014	58	71		34	0
8/3/2014	59	72		35	0
8/4/2014	59	72		36	0
8/5/2014	58	71		38	0
8/6/2014	58	71		41	0
8/7/2014	60	73		44	0
8/8/2014	60	73		47	0
8/9/2014	62	75		49	0
8/10/2014	62	75		49	0
8/11/2014	69	82		49	0
8/12/2014	57	70		49	0
8/13/2014	58	71		49	0
8/14/2014	57	70		45	0
8/15/2014	63	76		46	3
8/16/2014	61	74		45	0
8/17/2014	62	75		45	0
8/18/2014	62	75		45	0
8/19/2014	69	82		48	2
8/20/2014	60	73		48	0
8/21/2014	60	73		49	0
8/22/2014	63	76		46	0
8/23/2014	56	69		46	0
8/24/2014	57	70		46	0
8/25/2014	73	86		43	0
8/26/2014	59	72		42	0
8/27/2014	70	83		46	0
8/28/2014	115	128		46	0
8/29/2014	56	69		16	5
8/30/2014	55	68		48	0
8/31/2014	68	81		48	0

Total

1352

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FEB 25 2015

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