

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **ASI**
 Deliverability

(See Instructions on Reverse Side)

Date: 7/10/2013

API No. 15
15-023-20567-0000

Company Rosewood Resources		Lease Miller		Well Number 1-13	
County Cheyenne	Location NESW	Section 13	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 9-10-2004		Plug Back Total Depth 1457'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1500'	Perforations 1292'	To 1330'
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"/> Yes / No Pumping Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1330'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 7-9 20 13 at 8:55 (AM) (PM) Taken 7-10 20 13 at 9:10 (AM) (PM)		Well on Line: Started 7-10 20 13 at 9:10 (AM) (PM) Taken 7-11 20 13 at 9:55 (AM) (PM)			

OBSERVED SURFACE DATA

Duration of Shut-in 24 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 _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						112	126.4				
Flow						62	76.4			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
						39		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

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

(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 21 day of November, 20 13.

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Arnold Martinez
For Company

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 Miller 1-13 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: *Jannel Matney*

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.

W357
 Miller 01-13
 St. Francis
 St. Francis
 St. Francis
 July-13
 FloBoss

DATE	Casing PSI	STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2013	53	66	39	6.5	8	6	
7/2/2013	55	68	39	6.5	8	9	
7/3/2013	53	66	39	6.5	8	13	4.25 min bt
7/4/2013	55	68	39	6.5	8	11	
7/5/2013	55	68	39	6.5	8	12	
7/6/2013	55	68	40	6.5	8	15	
7/7/2013	67	80	40	6.5	8	14	
7/8/2013	65	78	40	6.5	8	13	
7/9/2013	64	75	40	6.5	4		6 si for state test - cp 64
7/10/2013	112	76	0	6.5	4	24	6 reopened - cp 112
7/11/2013	64	77	53	6.5	8	14	
7/12/2013	70	83	44	6.5	4		6 shut pumping unit off hfp
7/13/2013	73	86	41	6.5	0	2.5	0
7/14/2013	76	89	42	6.5	0		0
7/15/2013	56	69	41	6.5	4		6 restart pu
7/16/2013	53	66	40	6.5	8		12 treated well
7/17/2013	49	62	40	6.5	8		14
7/18/2013	80	93	40	6.5	4		6 pu off hfp
7/19/2013	71	84	37	6.5	0		0
7/20/2013	72	85	27	6.5	0		0
7/21/2013	73	86	36	6.5	0		0
7/22/2013	69	82	34	6.5	0		0
7/23/2013	66	79	34	6.5	4		6 restart pu
7/24/2013	74	87	36	6.5	8		13 4.5 min bt
7/25/2013	77	90	36	6.5	4		6 pu off hfp
7/26/2013	65	78	36	6.5	4		6 restart pu
7/27/2013	53	66	37	6.5	8		13
7/28/2013	54	67	37	6.5	8		12
7/29/2013	53	66	38	6.5	8		13
7/30/2013	93	106	39	6.5	4	3.5	6 pu off hfp
7/31/2013	105	118	26	6.5	0	5.5	0

Total

1149

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W357
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 August-13
 FloBoss

DATE	Casing PSI	STATIC MCF	SPM	HRS CYCL	Water DOWN BBL	REMARKS (Maximum length 110 characters)
8/1/2013	75	88	40	6.5		
8/2/2013	75	88	40	6.5		
8/3/2013	71	84	37	6.5		
8/4/2013	73	86	35	6.5		
8/5/2013	63	76	34	6.5		
8/6/2013	52	65	34	6.5	4	7 restart pu
8/7/2013	48	61	35	6.5	8	13
8/8/2013	51	64	37	6.5	8	12
8/9/2013	55	68	37	6.5	8	14
8/10/2013	52	65	38	6.5	8	13
8/11/2013	50	63	38	6.5	8	12
8/12/2013	50	67	38	6.5	8	13
8/13/2013	50	63	39	6.5	8	11
8/14/2013	51	64	39	6.5	8	10 5.5 min bt greased
8/15/2013	52	65	39	6.5	8 0.5	12
8/16/2013	62	75	39	6.5	8	13
8/17/2013	62	75	39	6.5	8	14
8/18/2013	63	76	40	6.5	8	13
8/19/2013	65	78	40	6.5	4 1.5	6
8/20/2013	87	100	38	6.5	0 1	0
8/21/2013	84	97	36	6.5	0	0
8/22/2013	87	100	38	6.5	0 5	0
8/23/2013	69	82	38	6.5	0	0
8/24/2013	81	94	36	6.5	0 1	0
8/25/2013	86	99	31	6.5	0 1	0
8/26/2013	52	65	34	6.5	4	6 started pumping unit
8/27/2013	49	62	34	6.5	8	12
8/28/2013	47	60	36	6.5	8	13
8/29/2013	89	102	36	6.5	4	6 pu off hfp
8/30/2013	84	97	32	6.5	0	0
8/31/2013	85	98	32	6.5	0	0

Total

1139

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CONSERVATION DIVISION
 WICHITA, KS

W357
 Miller 01-13
 St. Francis
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 September-13
 FloBoss

DATE	Casing			SPM	HRS CYCLEDOWN	Water BLS	REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF				
9/1/2013	107	120	28			1	
9/2/2013	91	104	31				
9/3/2013	114	127	36			22	
9/4/2013	118	131	2			10	
9/5/2013	114	127	6				
9/6/2013	87	100	45			1	
9/7/2013	92	105	38				
9/8/2013	90	103	38				
9/9/2013	93	106	36				
9/10/2013	97	110	31			2	
9/11/2013	113	126	29				
9/12/2013	119	132	9			18	
9/13/2013	87	100	34			4	
9/14/2013	71	84	43			2	
9/15/2013	81	94	34				
9/16/2013	62	75	34				
9/17/2013	51	64	32				
9/18/2013	49	62	31	6.5	4		5 restart pu
9/19/2013	45	58	34	6.5	8		10
9/20/2013	32	45	35	6.5	8		11
9/21/2013	36	48	35	6.5	8		12
9/22/2013	60	73	36	6.5	8		11
9/23/2013	62	75	36	6.5	8		10
9/24/2013	53	66	36	6.5	4	4	5 pu off hfp
9/25/2013	85	98	30	6.5	0		0
9/26/2013	70	83	35	6.5	0		0
9/27/2013	50	63	33	6.5	4		5 restart pu treated well
9/28/2013	54	67	33	6.5	8		11
9/29/2013	53	66	35	6.5	8		12
9/30/2013	58	71	35	6.5	8		14
10/1/2013							

Total

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