

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

(See Instructions on Reverse Side)

Open Flow **AST**
 Deliverability

Test Date:
8/24/2011

API No. 15
15-023-20587-00-00

Company Rosewood Resources		Lease Isernhagen		Well Number 2-23	
County Cheyenne	Location NWSE	Section 23	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 1508'	Packer Set at		
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1514'	Perforations 1316'	To 1352'
Tubing Size 3 1/2" 2 3/8"	Weight	Internal Diameter	Set at 1397'	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	Gas Gravity - G _g .6	
Vertical Depth(H) 1352'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut In 8-23 20 11 at 8:25 (AM) (PM)		Taken 8-24 20 11 at 8:40 (AM) (PM)			
Well on Line: Started 8-24 20 11 at 8:40 (AM) (PM)		Taken 8-25 20 11 at 9:25 (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 ₁) or (P _e)		Tubing Wellhead Pressure (P _w) or (P ₁) or (P _e)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						58	72.4				
Flow						59	73.4			24	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _s) (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 _{dv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						38		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

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

(P _e) ² - (P _w) ² or (P _e) ² - (P _d) ²	(P _e) ² - (P _w) ²	Choose formula 1 or 2: 1. P _e ² - P _w ² 2. P _e ² - P _d ² divided by: P _e ² - P _w ²	LOG of formula 1. or 2. and divide by: $\frac{P_e^2 - P_w^2}{P_e^2 - P_d^2}$	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 28 day of December, 20 11.

Witness (if any)

For Commission



For Company

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KCC WICHITA

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 Isemhagen 2-23 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: 12/28/11

Signature: 
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.

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Isernhagen 02,23 :

St. Francis

St. Francis

None

August-11

DATE	Tubing Casing		STATIC MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)		
	PSI	PSI							
8/1/2011		60	73	36	6.5	5	0	8	
8/2/2011		59	73	36	6.5	5	0	9	
8/3/2011		59	72	36	6.5	5	0	8	4.5 min bt greased
8/4/2011		59	72	36	6.5	5	0	10	
8/5/2011		58	72	36	6.5	5	0	8	
8/6/2011		59	72	36	6.5	5	0	9	
8/7/2011		59	72	36	6.5	5	0	7	
8/8/2011		58	72	36	6.5	5	0	9	4 min bt
8/9/2011		56	72	36	6.5	5	0	6	
8/10/2011		56	69	36	6.5	5	0	10	
8/11/2011		82	79	36	6.5	5	0	8	
8/12/2011		90	92	36	6.5	2.5	0	3	pu off hfp
8/13/2011		77	94	35	6.5	0	0	0	
8/14/2011		85	95	33	6.5	0	0	0	
8/15/2011		85	99	32	6.5	0	0	0	
8/16/2011		61	85	32	6.5	2.5	0	3	restart pu
8/17/2011		158	90	29	6.5	2.5	5	3	pu off hfp
8/18/2011		58	100	33	6.5	2.5	4	3	restart pu
8/19/2011		65	80	32	6.5	5	1	8	
8/20/2011		58	75	33	6.5	5	0	9	
8/21/2011		57	71	33	6.5	5	0	10	
8/22/2011		57	70	34	6.5	5	0	8	4.25 min bt
8/23/2011		63	70	34	6.5	2.5	0	3	squeeze well, SI
8/24/2011		58	98	0	6.5	2.5	24	3	open well restart pu
8/25/2011		60	74	42	6.5	5	0	7	
8/26/2011		58	76	42	6.5	5	0	6	
8/27/2011		60	71	40	6.5	5	0	7	
8/28/2011		60	72	40	6.5	5	0	8	
8/29/2011		59	72	39	6.5	5	0	7	
8/30/2011		59	72	39	6.5	5	0	9	
8/31/2011		60	72	39	6.5	5	0	7	5 min bt

Total

1073

196

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St. Francis

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None

September-11

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
9/1/2011		60	72	39	6.5	5	0	7	
9/2/2011		60	73	38	6.5	5	0	8	
9/3/2011		59	72	38	6.5	5	0	9	
9/4/2011		59	72	38	6.5	5	0	11	
9/5/2011		59	72	38	6.5	5	0	10	
9/6/2011		59	72	38	6.5	5	0	8	4.75 min bt
9/7/2011		59	71	38	6.5	5	0	9	
9/8/2011		60	73	38	6.5	5	0	8	
9/9/2011		59	72	38	6.5	5	0	7	
9/10/2011		59	72	38	6.5	5	0	8	
9/11/2011		60	72	38	6.5	5	0	8	
9/12/2011		60	73	38	6.5	5	0	8	
9/13/2011		58	72	37	6.5	5	0	9	
9/14/2011		61	71	35	6.5	5	0	8	pu off restart 4 25 min bt
9/15/2011		58	72	36	6.5	5	0	9	
9/16/2011		59	71	37	6.5	5	0	10	
9/17/2011		58	72	37	6.5	5	0	6	
9/18/2011		59	71	37	6.5	5	0	8	4.5 min bt
9/19/2011		58	71	38	6.5	5	0	7	
9/20/2011		59	72	38	6.5	5	0	9	
9/21/2011		59	71	38	6.5	5	0	10	
9/22/2011		58	71	38	6.5	5	0	6	
9/23/2011		58	71	38	6.5	5	0	8	Run at 5hr/day if it has a 4.5 bt.... l
9/24/2011		59	71	38	6.5	5	0	9	
9/25/2011		59	72	38	6.5	10	0	16	changed timer to 10 hours
9/26/2011		59	72	40	6.5	10	0	15	
9/27/2011		55	71	42	6.5	10	0	18	4 min bt
9/28/2011		61	68	43	6.5	10	0	18	
9/29/2011		55	69	43	6.5	10	0	14	
9/30/2011		57	69	44	6.5	10	0	15	
10/1/2011		0	0	0	0	0	0	0	

Total

1154

296

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Isernhagen 02:23

St. Francis

St. Francis

None

October-11

DATE	Tubing Casing		STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI						
10/1/2011		60	71	44	6.5	10	0	18
10/2/2011		61	73	45	6.5	10	0	20
10/3/2011		60	73	45	6.5	10	0	19
10/4/2011		59	73	45	6.5	10	0	16
10/5/2011		60	72	46	6.5	10	0	18 4 min bt
10/6/2011		59	71	46	6.5	10	0	19
10/7/2011		60	73	46	6.5	10	0	18
10/8/2011		59	72	46	6.5	10	0	17
10/9/2011		60	72	46	6.5	10	0	18
10/10/2011		59	73	47	6.5	10	0	18
10/11/2011		59	78	47	6.5	10	0	19
10/12/2011		59	72	47	6.5	10	0	18 4 min bt greased
10/13/2011		55	69	47	6.5	10	0	19
10/14/2011		56	71	47	6.5	10	0	20
10/15/2011		56	70	47	6.5	10	0	16
10/16/2011		59	71	48	6.5	10	0	18
10/17/2011		58	71	48	6.5	10	0	19
10/18/2011		60	70	48	6.5	10	0	20
10/19/2011		57	74	48	6.5	10	0	16 4.5 min bt
10/20/2011		59	73	48	6.5	10	0	21
10/21/2011		59	71	48	6.5	10	0	17
10/22/2011		59	72	48	6.5	10	0	18
10/23/2011		59	72	49	6.5	10	0	19
10/24/2011		59	72	49	6.5	10	0	19
10/25/2011		59	72	49	6.5	10	0	16 4.5 min bt
10/26/2011		58	71	49	6.5	10	0	17
10/27/2011		58	71	49	6.5	10	0	15
10/28/2011		58	71	49	6.5	10	0	14
10/29/2011		59	71	49	6.5	10	0	17
10/30/2011		58	71	49	6.5	10	0	15
10/31/2011		58	71	49	6.5	10	0	17

Total

1468

551

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