

# KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow  
 Deliverability

Test Date:  
4/12/2006

API No. 15  
15-023-20662-00-00

Company Rosewood Resources		Lease Isernhagen		Well Number 22-25	
County Cheyenne	Location SP NW/4	Section 25	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara	Gas Gathering Connection Branch Systems Inc.		
Completion Date 3/10/2006		Plug Back Total Depth 1463'	Packer Set at		
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1464'	Perforations 1280'	To 1316'
Tubing Size none	Weight	Internal Diameter	Set at	Perforations	To
Type Completion (Describe) Single (Vertical)		Type Fluid Production Dry Gas	Pump Unit or Traveling Plunger? Flowing		Yes <input checked="" type="radio"/> No
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide	% Nitrogen	Gas Gravity - G <sub>g</sub> .6	
Vertical Depth(H) 1316'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in _____ 20 _____ at _____ (AM) (PM) Taken _____ 20 _____ at _____ (AM) (PM)					
Well on Line: Started 4-12 20 06 at 5:45 (AM) (PM) Taken 4-13 20 06 at 6:00 (AM) (PM)					

### OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (P <sub>m</sub> )	Pressure Differential in Inches H <sub>2</sub> O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In											
Flow						162	176.65			24	0

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>b</sub> ) (F <sub>p</sub> ) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F <sub>g</sub>	Flowing Temperature Factor F <sub>tt</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						27		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

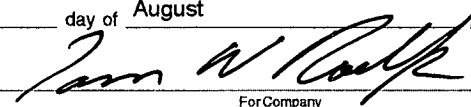
(P<sub>c</sub>)<sup>2</sup> = \_\_\_\_\_ : (P<sub>w</sub>)<sup>2</sup> = \_\_\_\_\_ : P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ : (P<sub>a</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>c</sub> <sup>2</sup> - P <sub>a</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>d</sub> <sup>2</sup> divided by: P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	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" ----- or ----- 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 (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 25 day of August, 2006.

\_\_\_\_\_  
Witness (if any)  
\_\_\_\_\_  
For Commission

  
\_\_\_\_\_  
For Company

\_\_\_\_\_  
Checked by

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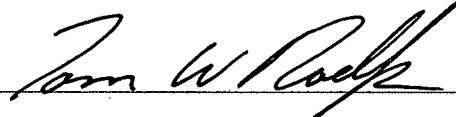
I declare under penalty of perjury under the laws of the state of Kansas that I am authorized to request exempt status under Rule K.A.R. 82-3-304 on behalf of the operator Rosewood Resources, Inc. and that the foregoing pressure information and statements contained on this application form are true and 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 Isernhagen 22-25 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: 8/25/2006

Signature:   
Title: Production Foreman

**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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Monthly Gauge Sheet

Well Name: Isernhager 22-25V

Pumper: \_\_\_\_\_

Month 4/06

Day	Static	Diff	MCF	Wtr	TP	CP	SPM Cycle	Remarks
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12			44			242#		First Gas 5:45pm
13	175		27		162	245		
14	170		26		152	240		
15	164		24		151	240		
16	152		29		139	240		
17	173		42		160	237		48 Gas
18	174		42		161	240		
19	173		42		160	240		
20	173		41		160	24235		
21	175		35		162	250		
22	173		41		160	238		
23	173		40		160	235		
24	170		39		157	230		
25	174		40		161	238		
26	173		39		160	238		
27	173		40		160	235		
28	170		40		157	235		
29	173		40		160	235		
30	170		40		157	240		
31								
Totals								

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Monthly Gauge Sheet ✓

Well Name: Tsuruhager 22-25

Pumper: \_\_\_\_\_ Month 5/06

Day	Static	Diff	MCF	Wtr	TP	CP	SPM Cycle	Remarks
1	172		40			159		
2	171		40			235		
3	172		40			235		
4	173		40			235		
5	173		40			235		
6	173		40			235		
7	173		40			235		
8	170		40			235		
9	172		39			230		
10	172		40			230		
11	172		40			230		
12	170		40			230		
13	172		40			<del>235</del> 235		
14	170		40			235		CD 3 hrs
15	172		38			245		
16	172		38			245		
17	170		40			230		
18	171		39			230		
19	171		40			235		
20	170		<del>39</del>			235		
21	170		39			230		
22	171		39			230		
23	170		39			230		CD 1 1/2 hr
24	171		39			230		
25	172		39			230		opened to 60 MCF
26	169		39		156	230		
27	169		<del>60</del>		156	210		
28	168		60		155	210		
29	168		60			210		
30	168		60			210		
31	168		61			210		
Totals								

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Well Name: Isernhagen 22-25

Pumper: \_\_\_\_\_

Month 6/06

Day	Static	Diff	MCF	Wtr	no TP TP	CP	SPM Cycle	Remarks
1	168		60		155	208		
2	168		60		155	208		
3	168		59		155	208		
4	168		61		155	208		
5	167		57		154	208		CP 2 hrs
6	166		60		153	200		
7	168		59		155	200		
8	166		59		153	200		
9	166		59		153	200		CP 1 hr
10	168		58		155	202		
11	166		59		153	200		
12	165		58		152	200		
13	153		58			140		140 at well
14	144		52			130		
15	127		49			120		
16	132		48			119		
17	137		50			120		
18	132		48			119		
19	124		44			120		
20	132		48			120		CP 2
21	125		43			112		
22	122		43			109		
23	125		45			112		
24	122		45			109		
25	127		43			114		
26	118		41			105		
27	114		41			97		
28	116		40			99		
29	115		40			99		
30	115		41			99		
31								
Totals								

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