

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **ASD**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
6/1/2015

API No. 15
023-20554-0000

Company Rosewood Resources, Inc.		Lease Northrup		Well Number 2-33	
County Cheyenne	Location SWSE	Section 33	TWP 2S	RNG (E/W) 42W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 7-15-2004		Plug Back Total Depth 1815'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1820'	Perforations 1600'	To 1634'
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) 1634'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-1 20 15 at 11:40 (AM) (PM)		Taken 6-4 20 15 at 11:50 (AM) (PM)			
Well on Line: Started 6-4 20 15 at 11:50 (AM) (PM)		Taken 6-5 20 15 at 1:40 (AM) (PM)			

OBSERVED SURFACE DATA

Duration of Shut-in 96 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter 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 _a)		Tubing Wellhead Pressure (P _w) or (P _t) or (P _a)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						179	193.4				
Flow						46	60.4			96	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
						8		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_a)² = 0.207
(P_d)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: $P_c^2 - P_w^2$	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 21 day of December, 20 15.

Witness (if any)

KCC WICHITA

Samuel Martiny
For Company

For Commission

APR 07 2016

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 Northrup 2-33 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: 12/21/15

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Signature: _____

Jamall 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.

W363 WELL ID
 Northrup 2-33 LEASE NAME
 West St. Francis FIELD
 St. Francis AREA
 Pumping Unit/Elec EQUIPMENT
 June-15 DATE

DATE	Line PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
6/1/2015	137	137	150	0	0	0	24	0	
6/2/2015	144	144	157	0	0	0	24	0	PU OFF - HFP
6/3/2015	172	172	185	0	0	0	24	0	
6/4/2015	179	179	192	0	0	0	24	0	
6/5/2015	117	117	130	8	0	0	0	0	
6/6/2015	81	81	94	7	6	12	0	0	0 turn on p u
6/7/2015	74	74	87	7	6	12	0	12	
6/8/2015	65	65	78	8	6	12	0	12	
6/9/2015	50	50	63	8	6	12	0	12	
6/10/2015	49	49	62	8	6	12	0	13	
6/11/2015	48	48	61	8	6	12	0	13	
6/12/2015	47	47	60	9	6	12	0	13	
6/13/2015	46	46	59	9	6	12	0	12	
6/14/2015	46	46	59	8	6	12	0	13	
6/15/2015	46	46	59	8	6	12	0	12	
6/16/2015	46	46	59	9	6	12	0	12	
6/17/2015	46	46	59	8	6	12	0	11	
6/18/2015	47	47	60	8	6	12	0	11	
6/19/2015	61	61	74	8	6	6	2	6	
6/20/2015	114	114	127	8	6	0	22	0	
6/21/2015	103	103	116	9	6	0	0	0	
6/22/2015	59	59	72	8	6	6	0	6	6 started pu
6/23/2015	44	44	57	8	6	12	0	12	
6/24/2015	45	45	58	8	6	12	0	12	
6/25/2015	45	45	58	8	6	12	0	12	
6/26/2015	45	45	58	8	6	12	0	12	
6/27/2015	45	45	58	8	6	12	0	12	
6/28/2015	45	45	58	9	6	12	0	12	
6/29/2015	45	45	58	9	6	12	0	12	
6/30/2015	45	45	58	8	6	12	0	12	
7/1/2015	-13	-13	0	0			0		

Total

212

254

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W363 WELL ID
 Northrup 2-33 LEASE NAME
 West St. Francis FIELD
 St. Francis AREA
 Pumping Unit/Elec EQUIPMENT
 July-15 DATE

DATE	Line PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2015	45	45	58	8	6	12	0	12	
7/2/2015	45	45	58	9	6	12	0	12	
7/3/2015	45	45	58	9	6	12	0	12	
7/4/2015	45	45	58	9	6	12	0	12	
7/5/2015	46	46	59	9	6	12	0	12	
7/6/2015	54	54	67	9	6	12	2	13	
7/7/2015	45	45	58	8	6	12	0	12	
7/8/2015	45	45	58	8	6	6	16	7	turned off for comp work
7/9/2015	126	126	139	7	6	0	24	0	flowing 7... big joe must be set high
7/10/2015	166	166	179	7	6	0	14	0	
7/11/2015	116	116	129	8	6	0	0	0	
7/12/2015	78	78	91	7	6	0	0	0	
7/13/2015	65	65	78	7	6	6	0	6	Turned PU back on
7/14/2015	48	48	61	8	6	12	0	12	
7/15/2015	44	44	57	8	6	12	0	12	
7/16/2015	45	45	58	8	6	12	0	12	
7/17/2015	45	45	58	8	6	12	0	12	
7/18/2015	45	45	58	8	6	12	0	12	
7/19/2015	44	44	57	8	6	12	0	12	
7/20/2015	44	44	57	8	6	12	0	12	
7/21/2015	56	56	69	8	6	12	4	10	
7/22/2015	45	45	58	8	6	12	0	12	
7/23/2015	44	44	57	9	6	12	0	12	
7/24/2015	44	44	57	9	6	12	0	12	
7/25/2015	44	44	57	9	6	12	0	12	
7/26/2015	44	44	57	8	6	12	0	12	
7/27/2015	43	43	56	8	6	12	0	12	
7/28/2015	43	43	56	9	6	12	0	12	
7/29/2015	43	43	56	9	6	12	0	12	
7/30/2015	43	43	56	9	6	12	0	12	
7/31/2015	43	43	56	9	6	12	0	12	

Total

256

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W363 WELL ID
 No. 11112-88 LEASE NAME
 West St. Francis FIELD
 St. Francis AREA
 Pumping Unit/Elec EQUIPMENT
 August-15 DATE

DATE	Line PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2015	43	43	56	9	6	12	0	12	
8/2/2015	44	44	57	9	6	12	0	12	
8/3/2015	45	45	58	8	6	12	0	12	
8/4/2015	43	43	56	9	6	12	0	12	
8/5/2015	43	43	56	9	6	12	0	12	
8/6/2015	43	43	56	9	6	12	0	12	
8/7/2015	43	43	56	9	6	12	0	12	
8/8/2015	43	43	56	9	6	12	0	12	
8/9/2015	43	43	56	9	6	12	0	12	
8/10/2015	43	43	56	8	6	12	0	12	
8/11/2015	43	43	56	9	6	12	0	12	
8/12/2015	43	43	56	9	6	12	0	12	
8/13/2015	44	44	57	9	6	12	0	12	
8/14/2015	44	44	57	9	6	12	0	12	
8/15/2015	45	45	58	9	6	12	0	12	
8/16/2015	46	46	59	8	6	12	0	12	
8/17/2015	45	45	58	8	6	12	0	12	
8/18/2015	45	45	58	9	6	12	0	12	
8/19/2015	46	46	59	9	6	12	0	12	
8/20/2015	45	45	58	9	6	12	0	12	
8/21/2015	46	46	59	9	6	12	0	12	
8/22/2015	46	46	59	9	6	12	0	12	
8/23/2015	46	46	59	9	6	12	0	12	
8/24/2015	46	46	59	8	6	12	0	12	
8/25/2015	48	48	61	9	6	12	0	12	
8/26/2015	47	47	60	9	6	12	0	12	
8/27/2015	46	46	59	9	6	12	0	12	
8/28/2015	45	45	58	9	6	12	0	12	
8/29/2015	47	47	60	9	6	12	0	12	
8/30/2015	50	50	63	9	6	12	0	12	
8/31/2015	52	52	65	8	6	12	0	12	

Total

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