

KANSAS CORPORATION COMMISSION

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **ASF**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
6/22/14

API No. 15
15-023-20591 - 0000

Company Rosewood Resources		Lease Dunn		Well Number 1-13	
County Cheyenne	Location SWNW	Section 13	TWP 3S	RNG (EW) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 9/10/2004		Plug Back Total Depth 1477'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1487'	Perforations 1300'	To 1336'
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="checkbox"/> Yes / No Pumping Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1336'		Pressure Taps Flange		Gas Gravity - G _g .6	
Pressure Buildup: Shut in 6-7 20 14 at 8:50 (AM) (PM) Taken 6-11 20 14 at 9:05 (AM) (PM)		Well on Line: Started 6-22 20 14 at 9:05 (AM) (PM) Taken 6-23 20 14 at 9:50 (AM) (PM)			

OBSERVED SURFACE DATA

Duration of Shut-in 360 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 _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						222	236.4				
Flow						52	66.4			360	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 _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						41		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = _____ : (P_w)² = _____ : P_g = _____ % (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: $\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	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 12 day of December, 20 14.

Received
KANSAS CORPORATION COMMISSION

Janard Narayana
For Company

Witness (if any)

FEB 25 2015

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 Dunn 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: 12/12/14

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KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
WICHITA, KS

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.

W346
 Dunn 1-13
 St. Francis
 St. Francis
 None
 June-13⁴
 FloBoss

DATE	Casing			HRS DOWN	REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF		
6/1/2013 ⁴	51	64		30	0
6/2/2013	56	69		28	0
6/3/2013	49	62		28	0 turn on pumpinng unit
6/4/2013	65	78		30	0
6/5/2013	46	59		32	0
6/6/2013	47	60		31	0 turn off pumping unit
6/7/2013	177	190		25	9
6/8/2013	190	203		4	24
6/9/2013	201	214		0	24
6/10/2013	213	226		0	24
6/11/2013	223	236		0	24
6/12/2013	228	241		0	24
6/13/2013	229	242		0	24
6/14/2013	230	243		0	24
6/15/2013	230	243		0	24
6/16/2013	231	244		0	24
6/17/2013	232	245		0	24
6/18/2013	231	244		0	24
6/19/2013	226	239		0	24
6/20/2013	224	237		0	24
6/21/2013	222	235		0	24
6/22/2013	101	114		0	24
6/23/2013	117	130		51	5
6/24/2013	107	120		41	0
6/25/2013	90	103		34	0
6/26/2013	81	94		33	0
6/27/2013	81	94		33	0
6/28/2013	51	64		33	0
6/29/2013	50	63		30	0 started pumping unit
6/30/2013	51	64		36	0
7/1/2013					0

Total

499

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CONSERVATION DIVISION
 WICHITA, KS

W346
 Dunn 1-13
 St. Francis
 St. Francis
 None
 July-14
 FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2014	52	65		39	0	19
7/2/2014	52	65		39	0	20
7/3/2014	52	65		41	0	21 4 min bt
7/4/2014	52	65		41	0	20
7/5/2014	53	66		41	0	19
7/6/2014	53	66		42	0	20
7/7/2014	54	67		44	0	21
7/8/2014	54	67		44	0	20
7/9/2014	56	69		44	0	19
7/10/2014	56	69		45	0	20
7/11/2014	59	72		45	0	21
7/12/2014	58	71		46	0	20
7/13/2014	59	72		39	0	19
7/14/2014	61	74		39	0	21 had to restart by raising rpm
7/15/2014	49	62		39	0	20
7/16/2014	51	64		43	0	19
7/17/2014	52	65		44	0	21
7/18/2014	52	65		44	0	20
7/19/2014	48	61		46	0	21
7/20/2014	50	63		39	0	19
7/21/2014	133	146		43	0	21
7/22/2014	151	164		20	22	20
7/23/2014	75	88		41	7	19
7/24/2014	57	70		39	3	14
7/25/2014	49	62		37	4	0 started pumping unit
7/26/2014	49	62		36	0	10
7/27/2014	50	63		40	0	21
7/28/2014	50	63		43	0	19
7/29/2014	50	63		45	0	20
7/30/2014	52	65		46	0	21
7/31/2014	52	65		46	0	19

Total

1280

545

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 KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
 WICHITA, KS

W346
 Dunn 1-13
 St. Francis
 St. Francis
 None
 August-14
 FloBoss

DATE	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2014	52	65	48	4	12	0	20	
8/2/2014	50	63	45	4	12	0	20	
8/3/2014	50	63	39	4	12	0	20	
8/4/2014	50	63	37	4	12	0	20	
8/5/2014	51	64	36	4	12	0	20	
8/6/2014	52	65	36	4	12	0	20	4.5 min BT
8/7/2014	53	66	35	4	12	0	20	
8/8/2014	53	66	34	4	12	0	20	
8/9/2014	54	67	33	4	12	0	20	
8/10/2014	55	68	33	4	12	0	10	
8/11/2014	55	68	32	4	12	0	0	found pu off, restarted
8/12/2014	50	63	36	4	12	0	10	
8/13/2014	51	64	39	4	12	0	20	
8/14/2014	50	63	36	4	12	0	20	
8/15/2014	56	69	38	4	12	3	20	
8/16/2014	55	68	42	4	12	0	20	
8/17/2014	56	69	44	4	21	0	20	
8/18/2014	56	69	45	4	12	0	20	
8/19/2014	64	77	45	4	21	2	20	
8/20/2014	54	67	46	4	12	0	20	
8/21/2014	53	66	41	4	12	0	20	
8/22/2014	65	78	43	4	12	0	20	
8/23/2014	50	63	46	4	12	0	20	
8/24/2014	51	64	46	4	12	0	20	
8/25/2014	77	90	47	4	12	0	20	
8/26/2014	54	67	47	4	12	0	20	
8/27/2014	55	68	47	4	12	0	20	
8/28/2014	116	129	42	4	12	0	10	
8/29/2014	49	62	39	4	12	5	10	
8/30/2014	49	62	44	4	12	0	20	
8/31/2014	64	77	48	4	12	0	20	

Total

1269

520

Received
 KANSAS CORPORATION COMMISSION

FEB 25 2015

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 WICHITA, KS