

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **AST**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
7/11/2013

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 (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 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="radio"/> Yes / No Pumping Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1336'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 7-10 20 13 at 8:50 (AM) (PM) Taken 7-11 20 13 at 9:05 (AM) (PM)		Well on Line: Started 7-11 20 13 at 9:05 (AM) (PM) Taken 7-12 20 13 at 9:50 (AM) (PM)			

OBSERVED SURFACE DATA

Duration of Shut-in 24 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						177	191.4				
Flow						87	101.4			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 _{tt}	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						31		

(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: $\left[\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	Backpressure Curve Slope = "n" ----- 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 21 day of November, 20 13.

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Januall Matthews
For Company

Witness (if any)

For Commission

DEC 26 2013

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: 11/21/13

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Signature: _____

Dannell Martiney

DEC 26 2013

Title: Production Assistant

CONSERVATION DIVISION
WICHITA, KS

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
 July-13
 FloBoss

DATE	Casing PSI	STATIC MCF	SPM	HRS CYCLEDOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2013	52	65	30	4	12	16
7/2/2013	53	66	30	4	12	19
7/3/2013	51	64	30	4	12	16 5.25 min bt
7/4/2013	55	68	32	4	12	17
7/5/2013	55	68	32	4	12	15
7/6/2013	54	67	33	4	12	17
7/7/2013	66	79	33	4	12	15
7/8/2013	65	78	31	4	12	14
7/9/2013	62	75	33	4	12	15
7/10/2013	60	78	33	4	6	8 si for state test - cp 60
7/11/2013	177	58	0	4	6	24 8 reopened - cp 177
7/12/2013	70	83	46	4	6	8 shut pumping unit off hfp
7/13/2013	73	86	41	4	0	2.5 0
7/14/2013	76	89	44	4	0	0
7/15/2013	55	68	42	4	6	8
7/16/2013	53	66	43	4	12	16 treated well
7/17/2013	48	61	38	4	12	18
7/18/2013	79	92	38	4	6	8 pu off hfp
7/19/2013	70	83	38	4	0	0
7/20/2013	71	84	35	4	0	0
7/21/2013	73	86	35	4	0	0
7/22/2013	69	82	34	4	0	0
7/23/2013	66	79	34	4	6	8 restart pu
7/24/2013	73	86	33	4	12	17 5 min bt
7/25/2013	76	89	35	4	6	8 pu off hfp
7/26/2013	64	77	34	4	6	9 restart pu
7/27/2013	53	66	35	4	12	18
7/28/2013	55	68	38	4	12	19
7/29/2013	52	65	37	4	12	18
7/30/2013	94	107	34	4	6	3.5 8 pu off hfp
7/31/2013	117	130	33	4	0	5.5 0

Total

1064

288

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W346
 Dunn 1-13
 St. Francis
 St. Francis
 None
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DATE	Casing			SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF				
8/1/2013	74	87	33	4			
8/2/2013	75	88	32	4			
8/3/2013	70	83	32	4			
8/4/2013	72	85	32	4			
8/5/2013	62	75	30	4			
8/6/2013	51	64	30	4	6		0 restart pu
8/7/2013	47	60	30	4	12		0
8/8/2013	51	64	30	4	12		0
8/9/2013	54	67	30	4	6		9 pu off, restarted
8/10/2013	53	65	32	4	12		18
8/11/2013	49	62	33	4	12		17
8/12/2013	49	62	30	4	12		18 alarm - dc bus low, restarted
8/13/2013	50	63	30	4	12		20
8/14/2013	50	63	32	4	12		16 5.5 min bt greased
8/15/2013	51	64	34	4	12	0.5	17
8/16/2013	61	74	34	4	12		15
8/17/2013	62	75	35	4	12		18
8/18/2013	62	75	35	4	12		19
8/19/2013	64	77	35	4	6	1.5	8
8/20/2013	87	100	33	4	0	1	0
8/21/2013	83	96	31	4	0		0
8/22/2013	87	100	31	4	0	5	0
8/23/2013	69	82	31	4	0		0
8/24/2013	81	94	30	4	0	1	0
8/25/2013	85	98	30	4	0	1	0
8/26/2013	51	64	29	4	0		0
8/27/2013	48	61	30	4	6		8 restart pu
8/28/2013	47	60	30	4	12		16
8/29/2013	89	102	32	4	6		8 pu Off hfp
8/30/2013	84	97	31	4	0		0
8/31/2013	84	97	29	4	0		0

Total

976

207

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CONSERVATION DIVISION
 WICHITA, KS

W346
 Dunn 1-13
 St. Francis
 St. Francis
 None
 September-13
 FloBoss

DATE	Casing			HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	STATIC MCF	SPM			
9/1/2013	107	120	28		1	
9/2/2013	91	104	28			
9/3/2013	163	176	28		22	
9/4/2013	177	190	9		10	
9/5/2013	114	127	27			
9/6/2013	86	99	31		1	
9/7/2013	92	105	29			
9/8/2013	89	102	27			
9/9/2013	92	105	27			
9/10/2013	96	109	26		2	
9/11/2013	144	157	26			
9/12/2013	144	157	13		18	
9/13/2013	86	99	29		4	
9/14/2013	80	93	27		2	
9/15/2013	80	93	27			
9/16/2013	61	74	27			
9/17/2013	51	64	25			
9/18/2013	48	61	25	4	6	8 restart pu
9/19/2013	44	57	25	4	12	16
9/20/2013	32	45	27	4	12	17
9/21/2013	35	48	29	4	12	16
9/22/2013	59	72	29	4	12	15
9/23/2013	62	75	28	4	12	16
9/24/2013	53	66	30	4	6	4 8 pu off hfp
9/25/2013	84	97	28	4	0	0
9/26/2013	70	83	27	4	0	0
9/27/2013	49	62	27	4	6	8 restart pu
9/28/2013	53	66	26	4	12	17
9/29/2013	53	66	26	4	12	19
9/30/2013	57	70	26	4	12	20
10/1/2013						

Total

787

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