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

Cheyenne SWSW 22 3S 44W 80  Reservoir Mobrara Gas Gathering Connection St. Francis Nobrara Pug Back Total Depth Packer Set at 910/2004 1441'  Pag Back Total Depth Packer Set at 910/2004 1441'  Casing Size Weight Internal Diameter Set at Perforations To 1320' 1358'  Tubing Size Weight Internal Diameter Set at Perforations To 1320' 1358'  Tubing Size Weight Internal Diameter Set at Perforations To 1320' 1358'  Tubing Size Weight Internal Diameter Set at Perforations To 1320' 1358'  Tubing Size Weight Internal Diameter Set at Perforations To 1320' 1358'  Tubing Size Conventional Dry Gas Gravity - Q	Type Test	t: en Flo	ow	RIST			(See Inst	ructions on R	everse Sid	•		-				
Lease   Leas	Deliverability								l No. 15 -023-20586 (	i86 a						
Cheyenne SWSW 22 3S 44W 80  Reservoir Mobrara Gas Gathering Connection St. Francis Nobrara Pug Back Total Depth Packer Set at 910/2004 1441'  Pag Back Total Depth Packer Set at 910/2004 1441'  Casing Size Weight Internal Diameter Set at Perforations To 1320' 1358'  Tubing Size Weight Internal Diameter Set at Perforations To 1320' 1358'  Tubing Size Weight Internal Diameter Set at Perforations To 1320' 1358'  Tubing Size Weight Internal Diameter Set at Perforations To 1320' 1358'  Tubing Size Weight Internal Diameter Set at Perforations To 1320' 1358'  Tubing Size Conventional Dry Gas Gravity - Q			esou	rces	,				agen				Well Number			
St. Francis Niobrara Branch Systems Inc. Completion Date Plug Back Total Depth Packer Set at 1441  1441  1422  10.567  4.052  1480	County Cheyenr	•							, ,							
### Stake / Ortice Pressure Fullon:   Differential in Inches H, 0	Field St. Franc	cis			, manufactures											
## 10.5# ## 4.052   1490"   1320"   1358"	•		te			-	ck Total C	Pepth	Packer Set at							
Type Completion (Describe) Type Fluid Production Dry Gas Pumping Unit Producing Thru (Annulus / Tubing) Type Fluid Production Dry Gas Pumping Unit Producing Thru (Annulus / Tubing) Type Fluid Production Dry Gas Pumping Unit Type Fluid Production Pumping Unit  Sas Gravity · G 6 Annulus  Weltrogen Gas Gravity · G 6 Annulus  Flange  2" Pressure Taps (Meter Run) (Prover) Size Flange 2"  Pressure Buildup: Shut in 6-3 20 99 at 11:20 AM) (PM) Taken 8-4 20 99 at 11:20 AM) (PM) Taken 8-5  Casing Tubing	Casing S 4 1/2"															
Single (Conventional)  Dry Gas Pumping Unit  **Nitrogen  Gas Gravity - Q  **Nitrogen  Gas Gravity - Q  **Netrod Depth(H)  Pressure Taps  (Meter Run) (Prover) Size  Flange  Pressure Buildup: Shut in 8-3 20 09 at 11:20  **Netrod Depth(H)  Well on Line: Started  **Started  **Netrogen  **OBSERVED SURFACE DATA  OBSERVED SURFACE DATA  Duration of Shut-in 24 Hour Casing Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches Inches H <sub>2</sub> 0 11:20  **Note The Comparative Towner Pressure Inches Inch	none	•							at							
Annulus	Single (	Conv	vent	ional)	·i·							Plunger? (Yes	nger? (Yes) / No			
Started   Star	Annulus	3		nulus / Tubir	ng)	% (	% Carbon Dioxide				gen		9			
Well on Line: Started 8-4 20 9 at 11:20	Vertical D 1358'	Vertical Depth(H) 1358'					·						Run) (Prover) Size			
Static   Orifice   Started   Orifice   Orifi	Pressure	Buildu	•	Shut in		20 09 at 11:10 (AM) (PM				-4	20	09 at 11:20	(AM)(PM)			
Static / Orifice Size (Inches)   Pressure Proper Pressure   Pressu	Well on L	ine:		Started 8-4		09 at 1	1:20				20	09 at 1:10	(AM) (PM)			
Static   Orifice   Orifi							OBSER	VED SURFAC	E DATA			Duration of Shut	-in 24 Hours			
Shut-in 40 54.4  Flow 1 225 239.4 24 0  FLOW STREAM ATTRIBUTES  Flowing Temperature Factor Fig. (Meld) Barrel)  GOPEN FLOW) (DELIVERABILITY) CALCULATIONS  (P <sub>g</sub> ) <sup>2</sup> = (P <sub>g</sub> ) <sup>2</sup> - (P <sub>g</sub> ) <sup></sup>	Static / Dynamic Property	Siz	ifice Meter ize Prover Pressure		Differential ure in	Temperature	Temperat	wellhead (P <sub>w</sub> ) or (	Pressure	Wellhe	ead Pressure r (P <sub>1</sub> ) or (P <sub>c</sub> )		1 *			
FLOW STREAM ATTRIBUTES  Plate Coefficient (F <sub>p</sub> ) (F <sub>p</sub> ) Prossure paia Pressure	Shut-In			poig (i iii)	miches H <sub>2</sub> O				·	psig	psia					
Plate Coefficient Mater or Prover Pressure plain $(F_{\mathfrak{p}})(F_{\mathfrak{p}})$ $(F_{\mathfrak{p}})(F_{\mathfrak{p}})(F_{\mathfrak{p}})$ $(F_{\mathfrak{p}})(F_{\mathfrak{p}})(F_{\mathfrak{p}})(F_{\mathfrak{p}})$ $(F_{\mathfrak{p}})(F_{\mathfrak{p}})(F_{\mathfrak{p}})(F_{\mathfrak{p}})$ $(F_{\mathfrak{p}})(F_$	Flow							225	239.4			24	0			
Coefficient $(F_{p})(F_{p})$ Meter or Prover Pressure psia $P_{p} \times P_{p} \times P$				Ci-d-			FLOW S		RIBUTES							
(OPEN FLOW) (DELIVERABILITY) CALCULATIONS $(P_a)^2 = \underbrace{ (P_w)^2 = \underbrace{ (P_e)^2 - (P_w)^2 }_{\text{Choose formula 1 or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Choose formula 1 or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Choose formula 1 or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Choose formula 1 or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Choose formula 1 or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Choose formula 1 or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Choose formula 1 or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Choose formula 1 or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Choose formula 1 or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 1 in or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 1 in or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 2 or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 3 in or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 4 in or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 4 in or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 6 in or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 7 in or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 6 in or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 7 in or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 6 in or 2:}} \underbrace{ (P_c)^2 - (P_w)^2 }_{\text{Cornula 7 in or 2:}}  (P_c)^2 - (P_w)$	Coeffieci (F <sub>b</sub> ) (F <sub>p</sub>	Coeffictient (F <sub>b</sub> ) (F <sub>p</sub> )		Meter or ver Pressure	Extension	Factor		Temperature Factor	Fa	ctor	R	(Cubic Fe	eet/ Fluid Gravity			
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>d</sub> ) <sup>2</sup> =											5					
Choose formula 1 or 2:     or     (P <sub>c</sub> )²- (P <sub>a</sub> )²     or     (P <sub>c</sub> )²- (P <sub>d</sub> )²     or     (P <sub>c</sub> )²- (P <sub>d</sub> )²     or     (P <sub>c</sub> )²- (P <sub>d</sub> )²     divided by: P <sub>c</sub> ²- P <sub>a</sub> ²     divided by: P <sub>c</sub> ²- P <sub>a</sub>	(D.)2			/= \-					•							
Poen Flow  Mcfd @ 14.65 psia  Deliverability  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 efacts stated therein, and that said report is true and correct. Executed this the    Copen Flow   Copen	(P <sub>c</sub> )' =		<u>    :                                </u>	(P <sub>w</sub> ) <sup>2</sup> =				_	··-		<u> </u>	(P <sub>d</sub> )	)2 =			
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 e facts stated therein, and that said report is true and correct. Executed this the	or				2. P <sub>c</sub> <sup>2</sup> -P <sub>d</sub> <sup>2</sup>	formula 1. or 2. and divide	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	Sid A	ppe = "n" or ssigned	i	LOG	Antilog	Deliverability Equals R x Antilog			
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 e facts stated therein, and that said report is true and correct. Executed this the																
e facts stated therein, and that said report is true and correct. Executed this the day of November, 20 09.	Open Flow	v	Mcfd @ 14.65 psia					Delivera	bility	1		Mcfd @ 14.65 psia				
Jon W Hoelp	The u	ndersi	igned	l authority, o	n behalf of the	Company, s	states that	t he is duly a	uthorized to	make th	e above repo	rt and that he ha	as knowledge of			
fom W loelp										NI.		11 11	_			
Witness (if any)				Witness (	if any)					m	W /	Joels .				
RECEIVED For Commission Checked by KANSAS CORPORATION CO								<u>.</u> .					RECEIVED			

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## 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 police conflated 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.

W349 Isernhagen 01-22 St. Francis St. Francis None

August-09

	Tubing	Casing					HRS	Water	REMARKS
DATE	PSI	PSI	STATIC	MCF	SPM	CYCLE	DOWN	BBLS	(Maximum length 110 characters)
8/1/2009			68	7			0	0	
8/2/2009			68	6	0	0	0	0	
8/3/2009			63	6	0	0	0	0	
8/4/2009		40	63	6	0	0	0	0	shut in for test
8/5/2009		225	60	2	0	0	0	0	open
8/6/2009			64	8	0	0	0	0	-
8/7/2009			68	6	0	0	0	0	
8/8/2009			65	6	0	0	0	0	
8/9/2009			63	7	0	0	0	0	
8/10/2009			63	7	0	0	0	0	
8/11/2009			61	6	0	0	0	0	
8/12/2009			61	6	0	0	0	0	
8/13/2009			59	6	0	0	0	0	
8/14/2009			66	5	0	0	0	0	
8/15/2009			66	5	0	0	0	0	
8/16/2009			64	5	0	0	0	0	
8/17/2009			137	4	0	0	0	0	
8/18/2009			136	5	0	0	0	0	
8/19/2009			136	4	0	0	0	0	
8/20/2009			66	4	0	0	0	0	
8/21/2009			65	5	0	0	0	0	
8/22/2009			64	5	0	0	4	0	
8/23/2009			113	5	0	0	0	0	
8/24/2009			64	5	0	0	0	0	
8/25/2009			95	4	0	0	4	0	
8/26/2009			63	6	0	0	0	0	
8/27/2009			63	6	0	0	0	0	
8/28/2009			66	6	0	0	0	0	
8/29/2009			113	6	0	0	0	0	
8/30/2009			64	5	0	0	3	0	
8/31/2009			64	5	0	0	0	0	

Total 169

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W349

Isernhagen 01-22

St. Francis

St. Francis

None

September-09

	Tubing	Casing								HRS	Water	
DATE	PSI	PSI		STATIC	MCF		SPM	CYCLE		DOWN	BBLS	
9/1/2009			0	64		5		0	0		0	0
9/2/2009			0	63		5		0	0	1	0	0
9/3/2009			0	67		5		0	0		0	0
9/4/2009			0	86		5		0	0		6	0
9/5/2009			0	68		5		0	0		0	0
9/6/2009			0	66		5		0	0		0	0
9/7/2009			0	66		5		0	0		0	0
9/8/2009			0	66		5		0	0	(	0	0
9/9/2009			0	68		5		0	0	(	0	0
9/10/2009			0	64		5		0	0	. (	0	0
9/11/2009			0	62		5		0	0	(	0	0
9/12/2009			0	61		5		0	0	(	0	0
9/13/2009			0	64		5		0	0	(	0	0
9/14/2009			0	61		5		0	0	(	0	0
9/15/2009			0	61		5		0	0	(	0	0
9/16/2009			0	60		5		0	0	(	0	0
9/17/2009			0	59		5		0	0	(	0	0
9/18/2009			0	59		5		0	0	(	0	0
9/19/2009			0	58		5	1	0	0	(	0	0
9/20/2009			0	58		5		0	0	(	0	0
9/21/2009			0	59		5		0	0	(	)	0
9/22/2009			0	58		5	1	0	0	(	)	0
9/23/2009			0	58		4	(	0	0	(	)	0
9/24/2009			0	57		4	(	0	0	(	)	0
9/25/2009			0	65		3	(	0	0	(	5	0
9/26/2009			0	112		5	(	0	0	(	)	0
9/27/2009			0	96		4	(	0	0	(	)	0
9/28/2009			0	88		4	(	0	0	(	)	0
9/29/2009			0	65		5	(	0	0	(	)	0
9/30/2009			0	61		3	(	0	0	8	3	0
10/1/2009			0	0		0	(	0	0	(	)	0

Total 142

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