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

Type Test	1:				(	See Instruct	lions on Re	werse Side	)						
∐ Op	en Flo	w			Test Date	<b>.</b>			ΔΡΙ	No. 15					
De	llverab	ilty			7/27/20				07	5-20512	000	$\alpha$			
Company Chesapeake Operating, Inc.				Lease St Colum			umbans	ıs			Well Number 2-12				
			Location SE Nu			TWP 22S			RNG (E/W) I1W		Acres Attributed		ributed		
Field Bradshaw			Reservoir Winfiel					thering Conn Energy Ser		-					
Completion Date 4/21/1994				Plug Bac 2780	k Total Dept	h	Packer Set at None		Set at						
Casing Size 4.5		Weight 10.5		Internal Diameter 4.012		Set at <b>2880</b>		Perforations 2739			то 2755				
Tubing Size 2.375		Weight		Internal Diameter 1.995		Set at 2799		Perforations			То				
Type Completion (Describe) Single Gas				Type Fluid Production Water				Pump Unit or Traveling Plunger? Yes / No Pump Unit							
Producing	g Thru	(Anı	nulus / Tubing)			Carbon Dioxid	de		% Nitros		<del></del>	Gas Gra	vity - G <sub>q</sub>		
Annulus Vertical D		٠								<del> </del>		.761	\ /5		
Vertical Depth(H) 5550					Pressure Taps Flange							2.067	un)¸(Pro	ver) Size	
Pressure	Buildu	p:	Shut in 7/27	2	0_11_at_7	:00	(AM) (PM)	Taken_7/	28	20	11 at _	7:00	(A	M) (PM)	
Well on L	ine:		Started	2	0 at		(AM) (PM)	Taken		20	at _		(A	M) (PM)	
-				_		OBSERVE	D SURFAC	E DATA			Duration	of Shut-ir	24	Hours	
Static / Dynamic Property	ynamic Size		Circle one:  Meter Prover Pressure psig (Pm)	Pressure Differential in Inches H <sub>o</sub> 0	Flowing Temperature t	Temperature Temperature		Casing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> ) psig psia		Tubing Wellhead Pressure $(P_{\psi})$ or $(P_1)$ or $(P_6)$ psig pale		Ouration (Hours)		Liquid Produced (Barrels)	
Shut-in							35	49.4	36	50.4	24		RECEIVE		
Flow													SEP	<del>2 3 20</del>	
						FLOW STR	EAM ATT	RIBUTES						- 3 20	
Plate Coeffiecient (F <sub>b</sub> ) (F <sub>p</sub> ) Mcfd		Pro	Circle one: Meter or over Pressure psia	Press Extension √ P <sub>m</sub> x h	Grav Fact F <sub>c</sub>	or Temperature		Fa	iation actor pv	Metered Flor R (Mcfd)		GOR ( (Cubic Fee Barrel)		Gravity G <sub>m</sub>	
										]					
(P <sub>c</sub> )² =		_:	(P <sub>w</sub> )² =	:	-	OW) (DELIV		/) CALCUL P <sub>e</sub> - 14.4) +		<b>:</b>		(P <sub>a</sub> )² (P <sub>d</sub> )²	= 0.20 <sup>1</sup>	7	
$(P_a)^2 \cdot (P_a)^2$ or $(P_a)^2 \cdot (P_d)^2$		(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>		1, $P_c^2 - P_a^2$ 2, $P_c^2 - P_d^2$ 3, $P_c^2 - P_d^2$ 3, $P_c^2 - P_d^2$	LOG of formuta 1. or 2. and divide p2.p2		Backpressure Curvi Slope = "n" or Assigned Standard Slope		n x LOG		Antil	Antilog		Open Flow Deliverability Equals R x Antilog (Mcfd)	
Open Flor	Open Flow Mcfd @ 14.65 psia					Deliveral	Deliverability			Mcfd @ 14.65 psia					
The u	unders	_	d authority, on l				•					•	knowle	idge of	
			Witness (if a	ny)				_	Jr.	For	Company	<u>~</u> _			
	<del></del>		For Commiss	ion		<del></del>	•	<del></del>	·	Che	cked by				

	penalty of perjury under the laws of the state of Kansas that I am authorized to request Rule K.A.R. 82-3-304 on behalf of the operator Chesapeake Operating, Inc.
and that the foregode correct to the best of equipment installations.	ng pressure information and statements contained on this application form are true and f my knowledge and belief based upon available production summaries and lease records ation and/or upon type of completion or upon use being made of the gas well herein named. It a one-year exemption from open flow testing for the St Columbans 2-12
☐ i☐	s a coalbed methane producer s cycled on plunger lift due to water s a source of natural gas for injection into an oil reservoir undergoing ER s on vacuum at the present time; KCC approval Docket No s not capable of producing at a daily rate in excess of 250 mcf/D o supply to the best of my ability any and all supporting documents deemed by Commission o corroborate this claim for exemption from testing.
Date: 9/21/2011	<del></del>
	Signature: Eric Correct Borylaton Correllione Analyst
	Title: Erin Carson, Regulatory Compliance Analyst

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.