KCC WICHITA

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

CS. Holl Company, L.L.C.  LUNZ "A"  S-21  24S  Reservoir  Section  TVP  RNG (EW)  Acres Attributed  Reservoir  Mississisppi  Semgas Gathering L.L.C.  Sergas Gathering L.L.C.  Sergas Gathering L.L.C.  Sergas Gathering L.L.C.  Sergas Gathering L.L.C.  Packer Set at  329/1982  10.5#  Packer Set at  10.5#	Type Test	t:					(See Instruc	ctions on Rev	erse Side)	٠				
Description	Ор	en Flov	W			Test Date				API	No 15			
Lease   Leas	Definerability							2/06/2013				23-0000		
Section TWP (Section No. 1975)  Acres Attributed (Wards No. 1975)  Acres Attributed (	Company						Lease				·			
April   Common   C									RNG (E	/W)	<del></del>			
micropide in Date micropide in				21		<b>24S</b>			,	•				
Simplesion Date  Plug Back Total Depth Packer Set at 3/3/29/1982  Bring Size	ield													
Size Weight Internal Diameter Set at Perforations To 1.12° 10.5# Internal Diameter Set at Perforations To 4288-4294' Internal Diameter Set at Perforations To 4288-4294' Internal Diameter Set at Perforations To 338° 4.7# The Completion (Describe) Type Fluid Production Pump Unit or Traveling Plunger? Yes / No Pump Unit or Tr	Embry						•					ng L.L.C.		
10.5# 4426' 4288-4294'  bing Size Weight A.7#  per Completion (Describe) Type Fluid Production Pump Unit or Traveling Plunger? Yes / No producing Thru (Annulus / Tubing) % Carbon Dioxide % Nitrogen Gas Gravity - G, ubing etical Depth(H) Pressure Tsps (Meter Run) (Prover) Size (Meter Run) (Meter Ru			1			Plug Back	k Total Dept	.h 		Packer S	et at			
bing Size 4.7#   Internal Diameter   Set at   Perforations   To   3/8"   4.7#   4.7#   4.7#   179pe Fluid Production   Pump Unit or Traveling Plunger?   Yes / No   Ingle (Gas)   SW   Pump Unit or Traveling Plunger?   Yes / No   Pump Unit or Trave	-				Internal Diameter						То			
per Completion (Describe) SW Pump Unit or Traveling Plunger? Yes / No pump Uni		z <del>e</del>	•	Weight		Internal Diameter		Set at				То		
ingle (Gas)  SW  Pump Unit  Oducing Thru (Annulus / Tubing)  % Carbon Dioxide  % Nitrogen  Gas Gravity - S <sub>q</sub> United Depth(H)  Pressure Taps  (Meter Run) (Prover) Size  ressure Buildup: Shut in  O2/05/2013  19 at 8:00  (AM) (PM) Taken 02/05/2013  19 at 8:00  (AM) (PM)  OBSERYED SURFACE DATA  Durstion of Shut-in 24 Ho  (Barrels)  Finding paid paid preparative (P <sub>x</sub> ) or (P <sub>x</sub>	2-3/8"			4.7#										
## Pressure Taps ### (Meter Run) (Prover) Size ### ### ### ### ### ### ### ### ### ##	• •		•	scribe)		-,						Plunger? Yes	unger? Yes / No	
ressure Buildup: Shut in 02/05/2013 19 at 8:00 (AM) (PM) Taken 02/05/2	roducing	Thru	(Ann	ulus / Tubing)		% Carbor	% Carbon Dioxide			% Nitrog	en	Gas Gravity - G		
ressure Buildup: Shut in 02/05/2013 19 at 8:00 (AM) (PM) Taken 02/05/2013 19 at 8:00 (AM) (PM) Faken 02/05/2013 19 at 8:00 (AM) (PM) Taken 02/05/2	Tubing													
Started   O2/06/2013   19   at   8:00   (AM) (PM)   Taken   O2/06/2013   19   at   8:00   (AM) (PM)	ertical D	epth(H	)	·			Press	sure Taps				(Meter F	Run) (Prover) Size	
OBSERVED SURFACE DATA  Duration of Shut-in 24 Hoter or Inches H-0 Inches In	Pressure Buildup: Shut in 02/05/2013 19				at _8:	:00	(AM) (PM) Taken 02/		2/05/2013 19		at 8:00	(AM) (PM)		
Static   Orifice   Orifi	Vell on Li	ine:	s	tarted 02/0	06/201319	at _8:	:00	. (AM) (PM)	Taken 0	2/06/20	1319	at <u>8:00</u>	(AM) (PM)	
Flowing   Flow							OBSERV	ED SURFACE	DATA			Duration of Shut	t-in 24 Hour	
Inches   Position   Inches   Inc	Static /	Orifice Meter or Differential		•	~ ·		Wellhead Pressure		•	Duration	Liquid Produced			
FLOW STREAM ATTRIBUTES  Plate Coefficient (F <sub>2</sub> ) (F <sub>2</sub> ) (F <sub>3</sub> ) (F	1 Prov			, , ,			(P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> )				(Hours)	(Barrels)		
FLOW STREAM ATTRIBUTES  Plate Coefficient (F,) (F,) (F,) (P,) (McId)  Prover Pressure Psia (Cubic Feet)  Mold Prover Pressure Psia (McId)  Meter of Psia (Cubic Feet)  R (Cubic Feet)  Barrel)  Goravity Factor F	Shut-In			psig	Inches H <sub>2</sub> U				psia		psia	24		
Plate Coefficient (F <sub>1</sub> ) (F <sub>1</sub> ) Meter or Prover Pressure plan   Flowing Factor	Flow													
Coefficient (F <sub>1</sub> )(F <sub>2</sub> ) Prove Pressure psia (P <sub>2</sub> ) Prove Pressure psia (Cubic Feet)							FLOW STI	REAM ATTRI	BUTES	•				
Coefficient $(F_b)(F_p)$ Prover Prassure $F_b$ Extension $F_b$ Factor $F_b$ Reactor	Plate Circle one: Press			Grav	Gravity		Flowing Deviati		Matered Flou	GOR	Flowing			
(OPEN FLOW) (DELIVERABILITY) CALCULATIONS  (P <sub>a</sub> ) <sup>2</sup> = (P <sub>w</sub> ) <sup>2</sup> = (P <sub>e</sub> ) <sup>2</sup> = (P <sub></sub>	Coefficient		Pm		<u> </u>	Fac	tor	•	Fa	ctor	R	(Cubic Fe	30 I	
$(P_c)^2 = (P_w)^2 = (P_w)^2 = P_d = (P_c)^2 - (P_w)^2 = (P_c)^2 $	(, P \ (, b \		, , ,		\$P <sub>m</sub> xH <sub>w</sub>	F <sub>g</sub>		<del>-</del>		. (Mcfd)		Barrel		
$(P_c)^2 = (P_w)^2 = (P_w)^2 = P_d = (P_c)^2 - (P_w)^2 = (P_c)^2 $											•			
$(P_c)^2 = (P_w)^2 = (P_w)^2 = P_d = (P_c)^2 - (P_w)^2 = (P_c)^2 $		I				(OPEN EL	OW) (DELIN	/EDADII ITV	CALCUL	ATIONS				
Choose formula 1 or 2:  1. P <sub>c</sub> <sup>2</sup> - P <sub>a</sub> <sup>2</sup> (P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> (P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> (P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> (P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> (P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> (P <sub>c</sub> ) <sup>2</sup> - P <sub>c</sub>	P <sub>c</sub> ) <sup>2</sup> =		:	(P,,,)2 =	:	•	• •	-			:			
(P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> (P <sub>c</sub>					Choose formula 1 or 2:					i i	Г٦			
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 ted therein, and that said report is true and correct. Executed this the  Witness (if any)  Assigned Standard Stope  Ass	(P <sub>c</sub> ) <sup>2</sup> - (I	P.)2	(F	(P <sub>w</sub> )² - (P <sub>w</sub> )²		formula	}			пx	LOG	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 the facts ted therein, and that said report is true and correct. Executed this the	(P <sub>e</sub> ) <sup>2</sup> - (F	P <sub>a</sub> ) <sup>2</sup>				and divide	P.2- P.2	Ass	igned			·	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 the facts ted therein, and that said report is true and correct. Executed this the					divided by: $P_c^2 - P_w^2$	by:		Standa	ira Siope				- Word	
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 ted therein, and that said report is true and correct. Executed this the										$\perp$				
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 ted therein, and that said report is true and correct. Executed this the														
ted therein, and that said report is true and correct. Executed this the 4th day of March 3201.  F. G. Holl Company, LLC For Company REC	pen Flov	w			Mcfd @ 14.6	5 psia		Deliverabili	ty			Mcfd @ 14.65 ps	ia	
Witness (if any)  F. G. Holl Company, LLC  Rebecco George REC	The u	undersi	gned	authority, on	behalf of the Co	ompany, sta	tes that he i	is duly author	ized to ma	ke the ab	ove report and	I that he has know	wledge of the facts	
F. G. Holl Company, 21C  Rebecca George REC  For Commission  For Commission  F. G. Holl Company, 21C  For Commission  Rebecca George  Checked by  MAD	ated ther	rein, an	d tha	at said report i	is true and corre	ct. Execute	ed this the	4 +4	day o		Jarch		<u> # 2013</u>	
For Commission  Rebecca George  Checked by  MAD									F. G	, H	oll Co	in PANY,		
For Commission Checked by MAD				Witness (ii	fany)			,	Rob	. ה ת מ	For (	Compleny J'	RECE	
	<u> </u>			For Comm	nission			_	115-0		Cher	cked by	MAR O	

I declare under penalty or perjury under the law exempt status under Rule K.A.R. 82-3-304 on behalf	ws of the state of Kansas that I am authorized to request of the operator_F.G. Holl Company, L.L.C.
	contained on this application form are true and correct to
	as production records and records of equipment installa-
tion and/or of type completion or upon use of the g	as well herein named.
I hereby request a permanent exemption from op	en flow testing for the LUNZ "A" 3-21
gas well on the grounds that said well:	
(Check one)	
is a coalbed methane producer	
is cycled on plunger lift due to w	vater vater
is a source of natural gas for inj	ection into an oil reservoir undergoing ER
is on vacuum at the present tim	e; KCC approval Docket No
is incapable of producing at a d	aily rate in excess of 250 mcf/D
Date: 03/04/2013	
Signature	
Title	e: Landman
The second of th	

Instructions:

All active gas wells must have at least an original G-2 form on file with the conservation division. If a gas well meets 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 obtain a testing exemption.

At some point during the succeeding calendar year, wellhead shut-in pressure shall be 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.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than thirty (30) days after the taking of the pressure reading. The form must be signed and dated on the front side as though it was a verified report of test results.

MAR 0 5 2013

KCC WICHITA