KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST (See Instructions on Reverse Side)

Type Test	: - -	DET			(See Instruc	tions on Re	verse Sidi	e)				
	en Flow liverabilt	NSI_			Test Date 8/14/20					No. 15 -20666-00 ©	00		
Company Rosewoo		ources, In	c.		3/ 1 4 /20		Lease Heim		023			Well Number	
					Section 33		TWP 2S		RNG (E/ 42W	W)		Acres Attribute 80	
Field Cherry C	reek				Reservoi					hering Conn Systems In		R	ECEIV
Completio 3/29/200					Plug Bac	k Total Dept	th		Packer S			JA	N 03
Casing Si 4 1/2"	ze		/eight 0.5#		Internal I	Diameter	Set at 1799.86'		Perfo	rations 3'	To 1648'	KCC	N 03; WICH
Tubing Si	ze		/eight		Internal [Diameter	Set			rations	То		<u> </u>
Type Con		(Describe)			Type Flui Dry Ga	d Production	n			it or Traveling	Plunger? Yes) No	
Producing Annulus	•	Annulus / 1	ubing)		% C	Carbon Dioxi	de		% Nitrog	en	Gas Gi	ravity - G _g	
Vertical D					·		sure Taps				(Meter	Run) (Prover) S	ize
1614' Pressure	Buildus:	Shut in .	8-13		0_12 at_1	Flan :55	ge (AM)(PM)	Taken 8-	-14		2" 12 _{at} 2:10	(AM) (PN	<i>∞</i>
Well on L	·	Started			0 at 0 at	:10	(AM) (PM)	Taken <u>8</u> -	-15	20	12 _{at} 2:55		_
,							D SURFAC				Duration of Shut-	24	lours
Static / Dynamic Property	Orifice Size (inches	Ce Meter Differential Temperature Temperature		Casing Wellhead Pressure (P _w) or (P _t) or (P _c) (P _w)			Tubing ellhead Pressure w) or (Pt) or (Pc) (Ho		Liquid Produc (Barrels)				
Shut-In							psig 100	psia 114.4	psig	psia			
Flow							44	58.4			24		
						FLOW STR	EAM ATTR	IBUTES					
Plate Coefficeient (F _b) (F _p) Mcfd		Circle one: Meter or Prover Pressure psia		Meter or Extension Factor		tor T	Temperature		eviation Metered Flow Factor R F _{pv} (Mcfd)		w GOR (Cubic Fe Barrel)	Gravá	ty
										54			
.		(0				OW) (DELIV		-				$0^2 = 0.207$	
P _c) ² =	T			oose formula 1 or 2	P _d =		1	ssure Curve		:	(P _d)		_
(P _c) ² - (F or (P _c) ² - (F	(a) ²	(P _c) ² - (P _w) ²		 P_c² - P_a² P_c² - P_d² ded by: P_c² - P_w² 	LOG of formula 1. or 2. and divide by:	P _c ² - P _w ²	Slo	pe = "n" - or signed ard Slope	l n x i	.og	Antilog	Open Flow Deliverability Equals R x Ant (Mcfd)	у
Open Flow	v			Mcfd @ 14.	l 65 psia		Deliverat	oility			Mcfd @ 14.65 ps	ia	
The u	ndersigr	ned authori	ty, on t			states that h			to make th		ort and that he ha		 f
				report is true					day of _De			, ₂₀ <u>12</u>	
									8011	mell	(20 0 i	N I)	
		Wit	ness (if an	y)			-		ul	For C	Company	<u>/</u>	
		For	Commissi	on			-			Chec	cked by		

KCC WICHITA

Date: 12/19/12 Signature: Danul Guw	ntained on this application form are true and able production summaries and lease records use being made of the gas well herein named.
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 Heim 31-33 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	able production summaries and lease records use being made of the gas well herein named.
I hereby request a one-year exemption from open flow testing for the Heim 31-33 Jas well on the grounds that said well: (Check one)	-
(Check one)	g for the Heim 31-33
(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: 12/19/12 Signature: Adamable Agamable Signature: Signature: Adamable Agamable Signature: Signat	
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Signature:	excess of 250 mcf/D
Signature:	supporting documents deemed by Commission
Signature: <u>Janull Gruw</u>	
Signature: <u>Janull Geww</u>	-
Signature: <u>Janull Gruw</u>	
	11 2
	annul Cellu
Title: Production Assistant	•
Title: Production Assistant	n Assistant
Title: Production	1 1

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.

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W436 Heim 31-33 West St. Francis St. Francis

None August-12

	Tubing	g Casing					HRS	Water	REMARKS
DATE	PSI	PSI	STATIC	MCF	SPM	CYCLE	DOWN	BBLS	(Maximum length 110 characters)
8/1/2012		36	49	45	6	12		21	
8/2/2012		35	48	45	6	6		10	
8/3/2012		37	50	49	6	24		22	
8/4/2012		55	68	52	6	24		21	
8/5/2012		58	71	48	6	24		23	
8/6/2012		50	63	49	6	12		23	turned to auto, good water
8/7/2012		41	54	50	6	12		21	
8/8/2012		41	54	50	6	12		22	
8/9/2012		37	50	50	6	12		21	bucket test 4 min
8/10/2012		35	48	51	6	12		20	
8/11/2012		67	80	45	6	12	1.5	21	
8/12/2012		39	52	50	6	12		22	
8/13/2012		36	49	48	6	6		10	shut well into for state test psi 35
8/14/2012		100	96	0	6	4	24	5	open well psi 100 and started pumping
8/15/2012		44	57	63	6	12		21	
8/16/2012		34	47	57	6	12		21	bucket test 4 min
8/17/2012		39	52	55	6	12		21	
8/18/2012		38	51	55	6	12		22	•
8/19/2012		38	51	55	6	12		19	
8/20/2012		37	50	55	6	6		11	pu off, wsf down
8/21/2012		35	48	51	6	6		· 12	started pumping unit
8/22/2012		35	48	51	6	12		24	
8/23/2012		39	52	53	6	12		21	
8/24/2012		34	47	53	6	12		21	bucket test 4 min
8/25/2012		34	47	53	6	12		22	
8/26/2012		37	50	54	6	12		21	
8/27/2012		37	50	54	6	12		20	
8/28/2012		44	57	54	6	12		21	
8/29/2012		40	53	54	6	12		22	
8/30/2012		39	52	54	6	12		21	bucket test 4 min
8/31/2012		41	54	54	6	12		21	

W436

Heim 31-33

West St. Francis

St. Francis

None

September-12

	Tubing	Casing				÷	HRS	Water	REMARKS
DATE	PSI	PSI	STATIC	MCF	SPM	CYCLE	DOWN	BBLS	(Maximum length 110 characters)
9/1/2012		40	53	54	6	12		21	
9/2/2012		40	53	54	6	12		22	
9/3/2012		40	53	54	6	12		21	
9/4/2012		38	51	49	6	6		11	shut power off and turned back on
9/5/2012		70	83	41	6	6	1	11	hfp not moving water
9/6/2012		40	53	49	6	12		21	restarted PU bucket test 4 min
9/7/2012		102	115	9	6	0	19	0	
9/8/2012		106	119	0	6	0	24	0	
9/9/2012		110	123	0	6	0	24	0	
9/10/2012		114	127	0	6	0	24		
9/11/2012		116	129	0	6	0	24	0	
9/12/2012		118	131	0		0	24		
9/13/2012		112	125	4	_		10	0	l
9/14/2012		101	114	31	6	0		0	
9/15/2012		94	107	51	6	0		0	
9/16/2012		89	102	50	6	0		0	
9/17/2012		81	94	54	6	0		0	
9/18/2012		66	79	70	6	6		0	started pumping unit
9/19/2012		80	93	53	6	3		7	shut pumping unit off hfp
9/20/2012		34	47	54	6	6		10	started pumping unit
9/21/2012		40	53	56	6	12		21	
9/22/2012		39	52	55	6	12		22	
9/23/2012		39	52	54	6	12		23	
9/24/2012		40	53	54	6	12		22	
9/25/2012		41	54	53	6	12			bucket test 4 min
9/26/2012		41	54	53	6	12		20	
9/27/2012		40	53	53	6	12		21	
9/28/2012		40	53	51	6	12		22	
9/29/2012		41	54	51	6	12		19	
9/30/2012		40	53	51	6	12		21	
10/1/2012									

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W436

Heim 31-33

West St. Francis

St. Francis

None

October-12

	Casing					HRS	Water	REMARKS
DATE	PSI	STATIC	MCF	SPM	CYCLE	DOWN	${\bf BBLS}$	(Maximum length 110 characters)
10/1/2012	39	52	47	6	0		0	
10/2/2012	38	51	44	6	6		10	pumping unit off restarted by royc
10/3/2012	40	53	46	6	12		19	
10/4/2012	36	49	48	6	12		20	
10/5/2012	38	51	49	6	12		21	
10/6/2012	38	51	49	6	12		20	
10/7/2012	38	51	49	6	12		19	
10/8/2012	38	51	50	6	12		21	bucket test 4 min
10/9/2012	39	52	50	6	12		20	
10/10/2012	39	52	50	6	12		19	
10/11/2012	38	51	50	6	12		20	
10/12/2012	38	51	50	6	12		21	
10/13/2012	39	52	50	6	12		22	
10/14/2012	38	51	51	6	12		23	
10/15/2012	40	53	51	6	12		20	
10/16/2012	60	73	51	6	12		21	
10/17/2012	37	50	50	6	12		20	
10/18/2012	37	50	51	6	12		19	
10/19/2012	36	49	51	6	12		21	bucket test 4 min and treated well
10/20/2012	81	94	28	6	6		10	shut pumping unit off hfp
10/21/2012	45	58	50	6	6		11	started pumping unit
10/22/2012	42	55	50	6	6		12	shut pumping unit off
10/23/2012	36	49	46	6	0		0	
10/24/2012	` 34	47	44	6	6		12	started pumping unit
10/25/2012	37	50	45	6	12		. 21	
10/26/2012	37	50	46	6	12		22	
10/27/2012	36	49	47	6	12		23	
10/28/2012	37	50	48	6	12		20	
10/29/2012	85	98	47	6	6	2	10	pu off hfp
10/30/2012	73	86	35	6	0		0	
10/31/2012	43	56	49	6	6		11	started pumping unit

Total

1472

508