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

Type Tes	t:				(	See Instruc	tions on Re	verse Side	e)					
Or	oen Flov	<b>v</b>			T D :					N- 45				
<b>√</b> De	eliverabi	lty			Test Date 12/10/2				API 15-	No. 15 199-20334	אחת			
Company Raven F		ces, LLC					Lease Westfie	ld				Well N	umber	•
County Location Wallace County E/2 SE/4					Section TWP 36 11S				RNG (E/W) 42W			Acres Attributed		
Field					Reservoi Niobrara					hering Conn gatherings	ection system (West K	(ansa:	s Pipeline)	_
·					•	Plug Back Total Depth 1012.30'				Set at	KANS	RECE SAS CORPORAT	IVED TION COM	
4 1/2"	4 1/2" 10.5					Internal Diameter Set at 1048.65'				rations '-920' 925		MAY 2	<b>0</b> 2010	
Tubing S 2 3/8"	ize	We 4.7	-		Internal I	Diameter	Set a	at	Perfo	rations	То	_	ONSERVAT	נוטאו טווי
	•	(Describe)			Type Flui	d Production	n		Pump Ur	nit or Traveling	Plunger? Yes		WICH	HTA, KS
Producing Tubing	g Thru (	(Annulus / Tub	oing)		% C	Carbon Dioxi	de		% Nitrog	en	Gas Gr	avity -	G <sub>g</sub>	•
Vertical D	Depth(H)	)				Pres	sure Taps				(Meter .500"	Run) (F	Prover) Size	
Pressure	Buildup	: Shut in		2	0 09 at 9		(AM) (PM)				09 <sub>at</sub> 930 ar		(AM) (PM)	
Well on L	ine:	Started 1	2-11	20	09 at 9	30 am	(AM) (PM)	Taken 12	2-12	20	09 <sub>at</sub> 930 ar	n 	(AM) (PM)	
						OBSERVE	D SURFAC	E DATA			Duration of Shut-	in 24	Hours	<u>;</u>
Static / Dynamic Property	Orific Size (inche	Prover Pre	Mater Differential repressure in psig (Pm) Inches H <sub>o</sub> 0 Pressure Differential t t Well Head Temperature t				Casing Tubing Wellhead Pressure $(P_w) \text{ or } (P_t) \text{ or } (P_c)$ Psig psia psig psig psig psig psig psig psig psig			ad Pressure (P <sub>t</sub> ) or (P <sub>c</sub> )	Duration Liquid Produc (Hours) (Barrels)			
Shut-In	.500					psig 4	psia	ia psig 4		24	0			
Flow	.500	16.2		2			1		1		24	0		
						FLOW STR		IBUTES					<del></del>	l
Plate Coeffiec (F <sub>b</sub> ) (F Mcfd	ient ,)	Circle one:  Meter or  Prover Pressure  psia		Press Extension P <sub>m</sub> xh	Fact	Gravity Factor Fg		Flowing  Temperature  Factor  F <sub>1</sub> F <sub>1</sub> F <sub>2</sub>		Metered Flow R (Mcfd)	w GOR (Cubic Fe Barrel)		Flowing Fluid Gravity G <sub>m</sub>	
					(OPEN EL	OW) (DELIV	EDABII ITV	CAL CUI	ATIONS	····				
(P <sub>c</sub> ) <sup>2</sup> =		, _: (P <sub>w</sub> ):	? <b>=</b>	:	P <sub>d</sub> =		•	) CALCUL P <sub>c</sub> - 14.4) +		:	(P <sub>a</sub> ) <sup>;</sup>	2 = 0.2 2 =	207	
(P <sub>c</sub> ) <sup>2</sup> - (F or (P <sub>c</sub> ) <sup>2</sup> - (F	P <sub>a</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>		Choose formula 1 or 2:		G of Backpres mula Slop or 2. divide P2-P2 Ass		ssure Curve De = "n" Or signed ard Slope	sure Curve e = "n" n x LOG gred n x LOG		Antilog	O De Equals	Open Flow Deliverability Equals R x Antilog (Mcfd)	
Open Flov	Open Flow Mcfd @ 14.65 psia						Deliverab			Mcfd @ 14.65 psia				
							e is duly au	thorized to		e above repo	rt and that he ha	s know	viedge of	
		Witnes	s (if any)			·	_			ForC	Company		,	
											. ,			
		For Co	nmission	ı						Chec	ked by			

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

				1	See instructi		-						
Deli	en Flow			Test Date	L <sup>1</sup>			API No	. 15				
	iverabilly			103t Date	**			ALLING	J. 13				
Company			* <del>2 4 74 mm4 m4 m4 m</del>	Lease							Well Number		
	copy party was any or we had a	ene en egrena tejat	ri - Jakopara , Ji• X	en e		estfield					1-36		
unty		Locatio		Section		TWP		RNG (E/W)			Acres Attributed		
<i>falla</i>	ce.	graphical Calaba ( ( <del>er abbe</del> re	······································	Reservoir		//3		927V Gas Gathering Connection			RECE KANSAS CORPORA		
,	÷			Nichr					•		KANSAS	5 CORPORATION CO.	
mpletion	n Dale	•	•		k Total Depti	, ·	Paci	ker Sei	al	awa sa a a a		MAY 2 0 201	
7-9-0	97			1012	.30							WIAI 20 COI	
sing Siz		Weight		Internal [	lameter	Set at	P	eriorat	ions	To	600	AICEDVATION DI	
4/2		10.5			1048		1.65	5' 86Z·		20' 925	925-93GONSER WI		
ソリカイニ プイブ	70	เกษายน	Weight		Diameter	Set at	P	Perforations		Ta	Ta		
- 78	plation (D	4.7	~	Time Filini	d Production	<i>871</i> .	9/ Bum	o I loit	ne Teneolina	Plunger? Yes	(61-	**************************************	
	Frac	rescribel		iype riui	a servatorinosi		FUI	ip Unit (	or navening i	riungerr tes	r (NA)		
ducino	Thru (An	inulus / Tubing)	<del></del>	% C	arbon Dioxid		% N	litrogen	<del></del>	Gas Gn	avity - G	C. Barris Com Accession	
	,						7	0 + 1			to		
rtical De	pih(H)				Press	ure Taps	u ermana.	THE PARTY OF THE P		(Meter F	lun) (Prov	/er) Size	
		Ob. 42	.//) ac	A9	9134	A (0) 4	/2	-11		29 at 9:30	<i></i>	a	
ssure t											•		
ll on Lir	ne:	Started 12	20	<i>Q</i> 2 at	9:30	(🚳 (PM) Te	ken <u>/Z</u>	-12	20 6	39 at 9:30	<u> </u>	<b>@</b> (PM)	
	····								Sitting the property of	7-C		-	
			mystaconominator		OBSERVE	SURFACE (				Duration of Shut-i	in 29	Hours	
etic/	ic / Orifice Crais and Pressure Pressure Flowing Well Head Wollnead Pressure Wellhead Pressure Oursition						Limuid P	Produced					
namic operty	Size (inches)	Prover Pressure		Temperature t	Temperature t	(P <sub>a</sub> ) or (P <sub>t</sub> ) <		(P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> )		(Hours)		rreis)	
Areny	(menes)	psig (Pm)	Inches H <sub>2</sub> 0	•	' 1	psig	psia p	elo	pain				
ul-in	.500	15.8	0			4		<b>4</b>		24	0		
Sour	.500	16.2	6.2 2			/	/	,		24	0		
		J	<u></u>		FLOW STRE	AM ATTRIB	JTES		I		1	<del></del>	
Dista		Cucio cno		1		Flowing						Slavino	
Plate loctricele	ent.	Meter or	Press Gra Extension Fac		Temperature		Deviation Factor		Metered Flow R	GOR (Cubic Fee	1	Flowing Fluid	
(F,) (F,	) Pro	over Pressure	√ P <sub>m</sub> xh	F,		Factor	F			Barres)	90	Gravity	
Mcfd		psia		1	<u> </u>	F <sub>rt</sub>	***					G,	
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•	(OPEN FL	OWI (DELIVE	RABILITY) C	ALCULATIO	NS		(D. 12	0.007		
	•	(P")² =_		P <sub>d</sub> s	٠.	-	14.4) + 14.4			(P <sub>a</sub> ) <sup>2</sup>	e 0.207		
2			haasa Jamula 1 or 2:	1		Backpressu		estable #404	F	\' o'			
)2 =	_)* (F	P <sub>c</sub> )2- (P <sub>n</sub> )2	2. P.z. P.z		LOG of formula 1. or 2. and divide p 2. p 2		י אר" ∍ יור"	n x LOG		Antīlog	Open Delive	rability	
) <sup>2</sup> = P <sub>a</sub> ) <sup>2</sup> - (P <sub>a</sub>	1	1					18d				Equats R	x Antilog	
P <sub>a</sub> )2- (iP <sub>a</sub>	_) <sup>2</sup>		kided by: Par Par	ру:	P.2. P.2	Standard	Stope				(Mc	cid)	
2 <sub>0</sub> )2-(19 <sub>0</sub>	") <sup>2</sup>	di		1									
P <sub>a</sub> )2- (1P <sub>a</sub>	") <sub>5</sub>	<u>a</u>				H						,	
P <sub>a</sub> )2- (1P <sub>a</sub>	") <sub>5</sub>	di											
P <sub>a</sub> )²- (P <sub>a</sub> or P <sub>a</sub> )²- (P <sub>a</sub>		ď											
P <sub>a</sub> )2- (iP <sub>a</sub>		ds	Mcfd @ 14.6	i5 psia		Deliverabilit	,		ľv	icid @ 14.65 psi:	3	l l	
P <sub>a</sub> ) <sup>2</sup> - (P <sub>a</sub> or P <sub>a</sub> ) <sup>2</sup> - (P <sub>a</sub>				· · · · · · · · · · · · · · · · · · ·	ilates that he		*	ke the :		icid <b>@ 14.65</b> psi: and that he ha		dge of .	
P <sub>o</sub> ) <sup>2</sup> - (P <sub>o</sub> or P <sub>o</sub> ) <sup>2</sup> - (P <sub>o</sub> en Flow	ndersigner	d authority, on	behalf of the	Company, a		is duly auth	orized to mai		above report	and that he ha	s knowled		
P <sub>o</sub> ) <sup>2</sup> - (P <sub>o</sub> or P <sub>o</sub> ) <sup>2</sup> - (P <sub>o</sub> en Flow	ndersigner		behalf of the	Company, a		is duly auth	orized to mai		above report		s knowled		
P <sub>o</sub> ) <sup>2</sup> - (P <sub>o</sub> or P <sub>o</sub> ) <sup>2</sup> - (P <sub>o</sub> en Flow	ndersigner	d authority, on	behalf of the	Company, a		is duly auth	orized to mal	of	above report	and that he ha	s knowled		

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 Raven Resources, LLC 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 Westfield 1-36
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: 5/18/10
MAY 2 0 2010  CONSERVATION DIVISION WICHITA, KS  Signature: Mendu  Title: Mynhenu

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.