Checked by

KANSAS CORPORATION COMMISSION ONE POINT STABLIZED OPEN FLOW OR DELIVERABILITY TEST

TYPE TEST: Open Flow																		
	-	rabilii	hv.		TEST DATE:				9-02	P	API No. 15-023-20376-0000							
Company					INT VALU.				Lease							Number		
1	tv Oi	1 & G	as LLC						Schult					1-1	7			
County			-		Location				Section	TWP F	NG (E/W)			Acre	s Attribu	ted		
Chey	enne	!			SWNWSE				17-4	w								
Field					Reservoir							Gas Gathering Connection						
Che	cru	Cr	eek		Niobrara							Kinder-Morgan						
Completi	- 1				Plu	th			F	acker Se	et at							
4/18/0	01				1332													
Casing Size Weight					Internal Diameter				Set at			erforati		To				
4.500 10.500				00	4.052				1373				234		69	·.		
Tubing Size Weight					Internal Diameter				Set at			erforati	ions	To				
NON	=					·												
Type Com	-	n (Des	cribe)		Type Fluid Production							Pump Unit or Traveling Plunger?						
Frac									F			110				O		
Producing	•	(Annul	.us/Tubin	g)	% Carbon Dioxide				RECEIVED			<pre>% Nitrogen Gas 3.773</pre>				Gravity- Gg .586		
Casin		·			.092							Meter Run Size						
Vertical	_	(н)			Pressure Taps				FEB 1 1 2002			2						
		han . Sh	ut in	1	Flange -25-02 17:00				KCC MUOL INTRKEN									
					1-25-02 17:00 1-28-02 15:00				KCC WICHITAKEN			1-29-02 17:00						
HEAT ON MINE.																		
						OB:	SERVE	D SUF	RFACE DATA		•							
Static/	ice	ice Meter		Pressure	Flowing Temp. t.	Wall	Head	Casing WellHead Press (P _w) (P _t) (P _C) psig psia		d Press.						Liquid		
Dynamic Siz		1		e		Diff.	Ter				P _C)		(P _w) (P _t) (F _c)		l	Duration	Prod.	
Property	Property in		. psig			In. H 20	t				psia	psiq	y psia		ia	(Hours)	Barrels	
Shut-in						1			188	200							<u> </u>	
Flow	.625		74.5		9.00	36	36		84		96				22.0			
			1			FI	OW ST	REA	M ATTRIBUT	ES						•		
						т		i							Γ			
COEFFICIENT		(METER)		E	XTENSION	GRAVITY		FLO	WING TEMP			RATE	RATE OF FLOW				_	
(F _b)		PRESSURE		$\sqrt{}$	P _m × H _w		FACTOR Fg		FACTOR Ft	FACTOR Fpv		R Mcfd		'	GOR	G m		
Mcfd		psia V								***								
1.914		87	87.0		27.98	1.306	.3063		.0239 1.0073		1.0073	72				.586		
			,		(OP	EN EL OWI	(DELIV	FRAF	ILITY) CALC	ULAT	IONS .			•		•	•	
•				,	•		(562.1				•				(P	$a)^2 = 0.20$		
(Pc) ² =	40.	2	(1	w) 2					37.2 % (Pc -			14.4) + 14.4 =			(P)	$(Pd)^2 = 5.55$		
(P _c) ² -	$(P_a)^2$			ł	(P _C) ² - (P	, p ²			Backpres						.	Open :		
or (P _C) ² -	(P.)	(P _c) ² - (P _w) ²		(P_) ² - (E	, ,2	LOG		Curve Slope"n" or Assigned Standard Slope				Antilog			Deliverability = R x Antilog Mcfd			
(P _c) ² -	``c'			(D) 2	'	-1	n x LOG											
		-			_(P _C) - (E	w					<u> </u>							
40.04	40.04		30.89		1.296		.1128		.674		.076	ю	1.191			85		
	34.65		30.89		1.122		.0499		.674		.033					77		
									<u> </u>		·							
OPEN FLOW	7		85		м	cfd @ 14.	65 psia	ì	I	ELIVE	RABILITY	·		77		Mcfd @ 14	.65 psia	
The un	dersign	ned aut	hority, on	beh	af of the Co	mpany, sta	ates that	t he is	duly authoriz	ed to	make the a	bove repo	ort and	d that he	has kr	nowledge of	the facts	
																,20		
										•								
	Wit	ness (i	f any)		·										For C	ompany		

For Commission