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

Type Test:

[✓] Open Flow

[✓] Deliverabilty

Test Date:	API No. 15
3/05 to 3/06/12	145-21,578-00-00

Company	Lease	Well Number
F.G. Holl	Ward B	2-30

County	Location	Section	TWP	RNG (E/W)	Acres Attributed
Pawnee	SWSWNENE	30	21S	15W	

Field	Reservoir	Gas Gathering Connection
JAC	Arbuckle	SemGas

Completion Date	Plug Back Total Depth	Packer Set at
11/3/08	4050	none

Casing Size	Weight	Internal Diameter	Set at	Perforations	To
5.5			4042	3870	3894

Tubing Size	Weight	Internal Diameter	Set at	Perforations	To
2.875			3978		

Type Completion (Describe)	Type Fluid Production	Pump Unit or Traveling Plunger? Yes / No
single	SW	no

Producing Thru (Annulus / Tubing)	% Carbon Dioxide	% Nitrogen	Gas Gravity - G_g
tubing	.4170	7.155	.640

Vertical Depth(H)	Pressure Taps	(Meter Run) (Prover) Size
	flange	2"

Pressure Buildup: Shut in 3/02 20 12 at 3:00 pm (AM) (PM) Taken 3/05 20 12 at 3:00 pm (AM) (PM)

Well on Line: Started 3/05 20 12 at 3:00 pm (AM) (PM) Taken 3/06 20 12 at 3:00 pm (AM) (PM)

OBSERVED SURFACE DATA
Duration of Shut-in 72 Hours

Static / Dynamic Property	Orifice Size (inches)	*Circle one:* Meter Prover Pressure psig (Pm)	Pressure Differential in Inches H_2O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P_w) or (P_t) or (P_c) psig	psia	Tubing Wellhead Pressure (P_w) or (P_t) or (P_c) psig	psia	Duration (Hours)	Liquid Produced (Barrels)
Shut-In						1160	1174.4	1160	1174.4	72	
Flow	.750	148.8	11.3	85		780	794.4	400	414.4	24	15.03

FLOW STREAM ATTRIBUTES

Plate Coeffiecient (F_b) (F_p) Mcfd	*Circle one:* Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F_g	Flowing Temperature Factor F_{ft}	Deviation Factor F_{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G_m
2.779	162.8	42.89	1.250	.9768	1.012	147		.640

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS
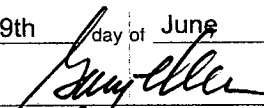
$(P_c)^2 =$ 1379.215 : $(P_w)^2 =$ 631.071 : $P_d =$ _____ % $(P_c - 14.4) + 14.4 =$ _____ : $(P_a)^2 =$ 0.207

$(P_d)^2 =$ _____

$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$	$(P_c)^2 - (P_w)^2$	*Choose formula 1 or 2:* 1. $P_c^2 - P_a^2$ 2. $P_c^2 - P_d^2$ *divided by:* $P_c^2 - P_w^2$	LOG of formula 1. or 2. *and divide by:* $P_c^2 - P_w^2$	Backpressure Curve Slope = "n" ----or---- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
1379.008	748.144	1.843	.2655	.681	.1808	1.52	224

Open Flow 224 Mcfd @ 14.65 psia **X .50 =** Deliverability 112 Mcfd @ 14.65 psia

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 stated therein, and that said report is true and correct. Executed this the 19th day of June , 20 12 .

Witness (if any)	Gary Eller Ceim, inc. For Company
For Commission	Checked by