

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2
(Rev. 8/98)

TYPE TEST:

- Open Flow
- Deliverability

TEST DATE: 9/14/12 API No. 15-033-20,969-00-03

Company Thoroughbred Associates		Lease RIETZKE			Well Number 1	
County COMANCHE		Location N/2-NE-NW	Section SEC 21-T32S-R19W	TWP 	RNG (E/W) 	Acres Attributed 160
Field 		Reservoir MARMATON		Gas Gathering Connection Thoroughbred & Associates		
Completion Date 9/23/98		Plug Back Total Depth 5200		Packer Set at NONE		
Casing Size 5.500	Weight 15.500	Internal Diameter 4.950	Set at 5403	Perforations 4851	To 4860	
Tubing Size 2.375	Weight 47.000	Internal Diameter 1.995	Set at 5180	Perforations 	To 	
Type Completion (Describe) Single (Gas)		Type Fluid Production Saltwater		Pump Unit or Traveling Plunger? PUMP		
Producing Thru (Annulus/Tubing) CASING		% Carbon Dioxide 	% Nitrogen 4.880	Gas Gravity- Gg .702		
Vertical Depth (H) 4851		Pressure Taps FLANGE			Meter Run Size 3	
Pressure Buildup: Shut in 9/11/12		TAKEN 	9:15 AM			
Well on Line: Started 9/14/12		TAKEN 	10:00 am			

RECEIVED
OCT 31 2012
KCC WICHITA

OBSERVED SURFACE DATA

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H ₂ O	Flowing Temp. t.	WellHead Temp. t.	Casing WellHead Press. (P _w) (P _t) (P _c)		Tubing WellHead Press. (P _w) (P _t) (P _c)		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						245	259			72.8	
Flow	1.500	18.0	1.00	60	60	40	54			24.0	

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _b) Mcf/d	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW R Mcf/d	GOR	G _m
11.410	32.4	5.69	1.1935	1.0000	1.0032	77		.702

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 67.3 (P_w)² = 3.0 P_d = 19.3 % (P_c - 14.4) + 14.4 = (P_a)² = 0.207
(P_d)² = 2.50

$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$	$(P_c)^2 - (P_w)^2$	$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$ or $\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_w)^2}$	LOG []	Backpressure Curve Slope "n" ----- or ----- Assigned Standard Slope	n x LOG []	Antilog	Open Flow Deliverability = R x Antilog Mcf/d
67.08	64.32	1.043	.0182	.750	.0137	1.032	80
64.79	64.32	1.007	.0031	.750	.0024	1.005	78

OPEN FLOW 80 Mcfd @ 14.65 psia DELIVERABILITY 78 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 herein and that said report is true and correct. Executed this the 29 day of October, 20 12

Witness (if any)

For Commission

For Company

Checked by