

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2
(Rev.8/98)

TYPE TEST:

- Open Flow
 Deliverability

TEST DATE: 8/28/01 API No. 15-075-20744

Company Horsehoe Operating Inc		Lease Hill		Well Number #2	
County Hamilton	Location C NW SW	Section 11-22s-40w	TWP	RNG (E/W)	Acres Attributed 480
Field Bradshaw	Reservoir Winfield	Gas Gathering Connection Duke			
Completion Date 2-5-01	Plug Back Total Depth 2778	Packer Set at			
Casing Size 4.500	Weight 10.500	Internal Diameter 4.090	Set at 2779	Perforations 2745	To 2754
Tubing Size 2.375	Weight	Internal Diameter	Set at 2761	Perforations	To
Type Completion (Describe) New Well Gas	Type Fluid Production	Pump Unit or Traveling Plunger? pumping unit			
Producing Thru (Annulus/Tubing)	% Carbon Dioxide .011	% Nitrogen 25.686	Gas Gravity- Gg .754		
Vertical Depth (H) 2750	Pressure Taps flange	Meter Run Size 2.067			
Pressure Buildup: Shut in	8/24/01 @ 1130	TAKEN	8/27/01 @ 1215		
Well on Line: Started	8/27/01 @ 1215	TAKEN	8/27/01 @ 1005		

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						218	232			72.0	
Flow	.750	198.0	1.50	79		198	212			24.8	60.0

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _b) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR F _g	FLOWING TEMP FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
2.779	212.4	17.85	1.1516	.9822	1.0152	56	981	2.700

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 54.0 (P_w)² = 45.1 P_d = % (P_c - 14.4) + 14.4 = (P_a)² = 0.207
(P_d)² =

$(P_c)^2 - (P_a)^2$	$(P_c)^2 - (P_w)^2$	$\frac{[(P_c)^2 - (P_a)^2]}{[(P_c)^2 - (P_w)^2]}$ or $\frac{(P_c)^2 - (P_d)^2}{(P_c)^2 - (P_w)^2}$	LOG	Backpressure Curve Slope "n" ---- or ---- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcfd
53.80	8.89	6.051	.7818	1.033	.8076	6.421	365

OPEN FLOW 365 Mcfd @ 14.65 psia DELIVERABILITY 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 19 day of SEP, 2001

Witness (if any)

For Company

For Commission

Checked by

I declare under penalty or 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 Horsehoe Operating Inc and that the foregoing information and statements contained on this application form are true and correct to the best of my knowledge and belief based upon gas production records and records of equipment installation and/or of type completion or upon use of the gas well herein named.

I hereby request a permanent exemption from open flow testing for the Hill 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 incapable of producing at a daily rate in excess of 150 mcf/D

Date: _____

Signature: _____

Title: _____

Instructions:

All active gas wells must have at least an original G-2 form on file with the conservation division. If a gas well meets 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 obtain a testing exemption.

At some point during the succeeding calendar year, wellhead shut-in pressure shall be 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.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than thirty (30) days after the taking of the pressure reading. The form must be signed and dated on the front side as though it was a verified report of test results.