

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2
(Rev.8/98)

TYPE TEST:

- ☒ Open Flow
☒ Deliverability

TEST DATE: 3-27-01

API No. 15-075-207270000

Company Horsehoe Operating Inc		Lease Buck		Well Number 1-3	
County Hamilton	Location 1980 FNL 1250 F	Section 3 23s 40w	TWP 40w	RNG (E/W)	Acres Attributed 640
Field Bradshaw	Reservoir Winfield	Gas Gathering Connection Duke			
Completion Date 2-25-01	Plug Back Total Depth 2684	Packer Set at			
Casing Size 4.500	Weight 10.500	Internal Diameter 4.090	Set at 2676	Perforations 2598	To 2607
Tubing Size 2.380	Weight 4.700	Internal Diameter 1.995	Set at	Perforations	To
Type Completion (Describe) Gas well	Type Fluid Production	Pump Unit or Traveling Plunger?			
Producing Thru (Annulus/Tubing) Tubing	% Carbon Dioxide .026	% Nitrogen 24.779	Gas Gravity- Gg .755		
Vertical Depth (H) 2681	Pressure Taps Flange	Meter Run Size 2.067			
Pressure Buildup: Shut in	3-23-01 @ 9:30	TAKEN	3-26-01 @ 13:45		
Well on Line: Started	3-26-01 @ 13:45	TAKEN	3-27-01 # 13:30		

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						227	241			76.0	
Flow	.625	53.7	10.60	43		141	155			24.0	

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _b) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW R Mcfd	GOR	G _m
1.910	68.1	26.87	1.1509	1.0168	1.0062	60		.755

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P _c) ² = 58.3		(P _w) ² = 24.1		21.4	%	(P _c - 14.4) + 14.4 =		(P _a) ² = 0.207
(P _c) ² - (P _a) ²		(P _c) ² - (P _w) ²				(P _c) ² - (P _d) ²		(P _d) ² = 2.66
or (P _c) ² - (P _d) ²		or (P _c) ² - (P _w) ²				or (P _c) ² - (P _d) ²		
			LOG		Backpressure Curve Slope "n" ---- or ---- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcfd
58.07	34.12	1.702	.2309	.542	.1251	1.334	80	
55.61	34.12	1.630	.2121	.542	.1150	1.303	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 30 day of March, 2004

Witness (if any)

For Commission

For Company

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 Buck 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.