

**KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST**

FORM G-2
(Rev.8/98)

TYPE TEST:

- Open Flow
 Deliverability

TEST DATE: 6-24-14 API No. 15-057-20576-00-01

Company Ritchie Exploration		Lease Bonnie Carson			Well Number #1	
County Ford	Location W2-NW-SE	Section 17-27S-23W	TWP	RNG(E/W)	Acres Attributed	
Field	Reservoir Morrow Sand, Mi		Gas Gathering Connection Superior Pipeline			
Completion Date 3/18/14	Plug Back Total Depth 5042		Packer Set at			
Casing Size 5.500	Weight 15.500	Internal Diameter 5.000	Set at 5072	Perforations 4932	To 4898	
Tubing Size 2.875	Weight 6.400	Internal Diameter 2.594	Set at 4917	Perforations	To	
Type Completion (Describe) Work Over Gas	Type Fluid Production Water		Pump Unit or Traveling Plunger?			
Producing Thru (Annulus/Tubing) Tubing	% Carbon Dioxide .104		% Nitrogen 19.821		Gas Gravity- Gg .702	
Vertical Depth (H) 4915	Pressure Taps Flange			Meter Run Size 3.068		
Pressure Buildup: Shut in	6-22-14 @1:00 P.M.		TAKEN	6-24-14 @1:00 P.M.		
Well on Line: Started	6-25-14 @1:00 P.M.		TAKEN	6-26-14 @1:00 P.M.		

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						1121	1135	1121	1135	72.0	
Flow	1.500	84.5	9.00			984	998	884	898	24.0	1.0

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 E _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
11.410	98.9	29.83	1.1935	1.0632	1.0111	436	436780	.711

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 1289.1 (P_w)² = 997.0 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
1288.93	292.13	4.412	.6447	.897	.5783	3.787	1653

OPEN FLOW 1653 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 26th day of June, 20 14

Witness (if any)

For Commission

KCC WICHITA

JUL 14 2014

RECEIVED

Ritchie Exploration

For Company

Hosco Testing & Measurement

Checked by

