

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

FORM G-2
(Rev. 8/88)

TYPE TEST:

- Open Flow
 Deliverability

TEST DATE: 11-3-15

API No. 15-057-20588-0000

Company Ritchie Exploration		Lease Lamb Lance			Well Number #1	
County Ford	Location W2-NW-SE	Section 8-28s-22w	TWP RNG (E/W)	Acres Attributed 640		
Field Lamb	Reservoir Mississippian	Gas Gathering Connection Superior Pipeline				
Completion Date 6-25-10	Plug Back Total Depth 5272		Packer Set at			
Casing Size 4.500	Weight 10.500	Internal Diameter 4.062	Set at 5302	Perforations 5024	To 5029	
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.995	Set at 5015	Perforations	To	
Type Completion (Describe) New Well	Type Fluid Production		Pump Unit or Traveling Plunger?			
Producing Thru (Annulus/Tubing) Tubing	% Carbon Dioxide .103		% Nitrogen 9.155		Gas Gravity- Gg .659	
Vertical Depth (ft) 5026	Pressure Taps Flange		Meter Run Size 3.068			
Pressure Buildup: Shut in	10-31-15 @ 10:30 A.		TAKEN	10-31-15 @ 10:30 A.		
Well on Line: Started	11-2-15 @ 10:30 A.M.		TAKEN	11-3-15 @ 10:30 A.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 _c) (P _c)		Tubing Wellhead Press. (P _w) (P _t) (P _c)		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						633	647	633	648	72.0	
Flow	1.500	33.9	12.50	60	60	541	555	525	539	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
11.410	48.3	24.57	1.2318	1.0000	1.0039	346		.659

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 419.1 (P_w)² = 308.8 P_d = (P_c - 14.4) + 14.4 = (P_a)² = 0.207
(P_d)² =

$(P_c)^2 - (P_a)^2$	$(P_o)^2 - (P_w)^2$	$\frac{(P_o)^2 - (P_w)^2}{(P_c)^2 - (P_a)^2}$ OR $\frac{(P_o)^2 - (P_w)^2}{(P_c)^2 - (P_w)^2}$	LOG	Backpressure Curve Slope "n" ----- or ----- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcfd
418.92	110.32	3.797	.5795	.803	.4653	2.919	1012

OPEN FLOW 1012 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 15th day of November, 2015.

KCC WICHITA

NOV 16 2015

RECEIVED

Ritchie Exploration
For Company
Hosco T. M. *[Signature]*
Checked by

Witness (if any)

For Commission