

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

FORM G-2
(Rev. 8/98)

TYPE TEST:

- Open Flow
 Deliverability

TEST DATE: 11-4-14 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 4.052	Set at 5302	Perforations 5024	To 5029	Received KANSAS CORPORATION COMMISSION DEC 01 2014 CONSERVATION DIVISION WICHITA, KS
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	10-31-14 @12:30P.M		TAKEN	10-31-14 @12:30P.M		
Well on Line: Started	11-3-14 @12:30 P.M		TAKEN	10-4-14 @12:30 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						652	666	651	665	72.0	
Flow	1.500	34.0	25.20	60	60	549	563	548	563	24.0	

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _d) 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	48.4	34.92	1.2318	1.0000	1.0039	492		.659

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 444.1 (P_w)² = 317.8 P_d = % (P_c - 14.4) + 14.4 = (P_a)² = 0.207
(P_d)² =

$(P_c)^2 - (P_a)^2$	$(P_c)^2 - (P_w)^2$	$\frac{[(P_c)^2 - (P_a)^2] \text{ or } [(P_c)^2 - (P_d)^2]}{[(P_c)^2 - (P_w)^2]}$	LOG	Backpressure Curve Slope "n" --- or --- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcfd
443.88	126.33	3.514	.5458	.803	.4382	2.743	1351

OPEN FLOW 1351 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 5th day of November, 20 14

Witness (if any)

For Commission

Ritchie Exploration
For Company

[Signature]
Checked by