

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2
(Rev. 8/98)

TYPE TEST:

- Open Flow
 Deliverability

TEST DATE: 04-25-16

API No. 15-057-20611-0000

Company Ritchie Exploration		Lease Stephenson		Well Number 4B	
County Ford	Location SE NW NW	Section 4-28S-22W	TWP	RNG (E/W)	Acres Attributed 640
Field Lamb North	Reservoir Mississippian	Gas Gathering Connection			
Completion Date 7-1-10	Plug Back Total Depth 5165	Packer Set at			
Casing Size 4.500	Weight 10.500	Internal Diameter 4.052	Set at 5187	Perforations 4968	To 4991
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.995	Set at 4992	Perforations	To
Type Completion (Describe) New Well	Type Fluid Production None	Pump Unit or Traveling Plunger? no			
Producing Thru (Annulus/Tubing) Tubing	% Carbon Dioxide .087	% Nitrogen 9.531		Gas Gravity- Gg .662	
Vertical Depth (B) 4979	Pressure Taps Flange	Meter Run Size 3.068			
Pressure Buildup: Shut in	04-22-16 @ 10:00 A	TAKEN	04-25-16 @ 10:00 A		
Well on Line: Started	04-25-16 @ 10:00 A	TAKEN	04-26-16 @ 10:00 A		

OBSERVED SURFACE DATA

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H ₂ O	Flowing Temp. t.	Well Head Temp. t.	Casing Well Head Press. (P _w) (P _t) (P _c)		Tubing Well Head Press. (P _w) (P _t) (P _c)		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						962	976	959	973	72.0	
Flow	1.625	32.8	4.40	60	60	876	891	873	887	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
13.580	47.2	14.41	1.2291	1.0000	1.0038	241		.662

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 954.3 (P_w)² = 794.2 Pd = % (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
954.13	160.10	5.960	.7752	1.000	.7752	5.960	1438

OPEN FLOW 1438 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 25th day of April, 20 16

Witness (if any)

For Commission

KCC WICHITA

APR 29 2016

RECEIVED

Ritchie Exploration
For Company

By [Signature] Hosco T+M
Checked by



April 27th, 2016

Kansas Corporation Commission
266 N Main St, Ste 220
Wichita, KS 67202-1513
Attn: Jim Hemmen

RE: Stephenson 4B #1
Sec. 4-28S-22W
Ford County, Kansas
API# 15-057-20611-00-00

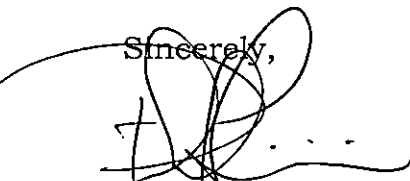
Mr. Hemmen,

Enclosed please find the annual Open Flow Test (Form G-2) on the above referenced well.

Ritchie Exploration, Inc. would like for this to be held confidential for the maximum allowable time.

If you have any questions or concerns, please feel free to call me at (316) 691-9518. Thank you for your assistance in this matter.

Sincerely,



Peter J. Fiorini
Production Manager
Ritchie Exploration, Inc.

KCC WICHITA

APR 29 2016

RECEIVED