

KANSAS CORPORATION COMMISSION

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

(See Instructions on Reverse Side)

Type Test:

- Open Flow
 Deliverability

Test Date:
12/2/2016

API No. 15
15-145-21768 - 0000

Company Ritchie Exploration, Inc.		Lease Concept 3AB		Well Number #1	
County Ford	Location S/2 SE NE	Section 3	TWP 22	RNG (E/W) 18W	Acres Attributed
Field Cong/Miss		Reservoir Cong/Miss		Gas Gathering Connection IACX	
Completion Date 01/09/2015		Plug Back Total Depth 4170		Packer Set at	
Casing Size 4.50	Weight 10.5	Internal Diameter 4.052	Set at 4424	Perforations 4069	To 4123
Tubing Size 2.375	Weight 4.70	Internal Diameter 1.995	Set at 4048	Perforations	To
Type Completion (Describe) Frac		Type Fluid Production oil/water		Pump Unit or Traveling Plunger? Yes / No no	
Producing Thru (Annulus / Tubing) Tubing		% Carbon Dioxide 0.110		% Nitrogen 11.040	
Gas Gravity - G _g 0.649					
Vertical Depth(H) 4096		Pressure Taps Flange		(Meter Run) (Prover) Size 3.068	
Pressure Buildup: Shut in 12/1 20 16 at 9:00 AM (AM) (PM) Taken 20 at (AM) (PM)					
Well on Line: Started 12/2 20 16 at 9:00 AM (AM) (PM) Taken 20 at (AM) (PM)					

OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter or Prover Pressure psig (Pm)	Pressure Differential in Inches H ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P _i) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _i) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						60	170	40	60		
Flow											

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _a)(F _v) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F _g	Flowing Temperature Factor F _t	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

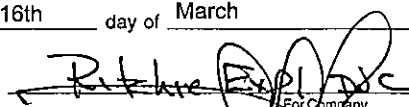
(P_c)² = _____ : (P_w)² = _____ : P_d = _____ % (P_c - 14.4) + 14.4 = _____ : (P_a)² = 0.207
(P_d)² = _____

(P _c) ² - (P _a) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a ² 2. P _c ² - P _d ² divided by: P _c ² - P _w ²	LOG of formula 1, or 2, and divide by: $\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG []	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)

Open Flow 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 therein, and that said report is true and correct. Executed this the 16th day of March, 2017.

Witness (if any) _____
For Commission _____


 Checked by _____
 Received KANSAS CORPORATION COMMISSION
 20 2017
 CONSERVATION DIVISION WICHITA, KS
 3-20-17

I declare under penalty of 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 Ritchie Exploration, Inc. and that the foregoing pressure information and statements contained on this application form are true and correct to the best of my knowledge and belief based upon available production summaries and lease records of equipment installation and/or upon type of completion or upon use being made of the gas well herein named.

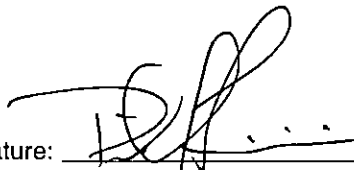
I hereby request a one-year exemption from open flow testing for the Concept 3AB gas well on the grounds that said well:

(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 not capable of producing at a daily rate in excess of 250 mcf/D

I further agree to supply to the best of my ability any and all supporting documents deemed by Commission staff as necessary to corroborate this claim for exemption from testing.

Date: 3/16/2017

Signature: 
Title: Production Manager

Received
KANSAS CORPORATION COMMISSION
MAR 20 2017
CONSERVATION DIVISION
WICHITA, KS

Instructions: If a gas well meets one of 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 claim exempt status for the gas well.

At some point during the current calendar year, wellhead shut-in pressure shall have been 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 for so long as the gas well continues to meet the eligibility criterion or until the claim of eligibility for exemption **IS** denied.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than December 31 of the year for which it's intended to acquire exempt status for the subject well. The form must be signed and dated on the front side as though it was a verified report of annual test results.