

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

(See Instructions on Reverse Side)

- Open Flow
 Deliverability

Test Date:
4/21 to 4/22/14

API No. 15
077-21717-00-00

Company Griffin Management			Lease Ferguson		Well Number 1
County Harper	Location SESWNW	Section 29	TWP 32S	RNG (E/W) 09W	Acres Attributed
Field Little Sandy Creek East		Reservoir Miss	Gas Gathering Connection Oneok		
Completion Date 12/14/10		Plug Back Total Depth 4500	Packer Set at none		
Casing Size 5.5	Weight	Internal Diameter	Set at 4500	Perforations 4338	To 4342
Tubing Size 2.375	Weight	Internal Diameter	Set at 4309	Perforations	To
Type Completion (Describe) single		Type Fluid Production Oil/SW	Pump Unit or Traveling Plunger? Yes / No Yes - pump unit		
Producing Thru (Annulus / Tubing) annulus		% Carbon Dioxide .1844	% Nitrogen 2.1747	Gas Gravity - G _g .693	
Vertical Depth(H)		Pressure Taps flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 4/18		20 14 at 10:15 am	(AM) (PM) Taken 4/21	20 14 at 10:15 am	(AM) (PM)
Well on Line: Started 4/21		20 14 at 10:15 am	(AM) (PM) Taken 4/22	20 14 at 10:15 am	(AM) (PM)

OBSERVED SURFACE DATA

Duration of Shut-in 72 Hours

Static / Dynamic Property	Orifice Size (Inches)	Circle one: Meter Prover Pressure psig (P _m)	Pressure Differential in Inches H ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P _t) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _t) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						483.2	497.6			72	
Flow	.500	22.1	9.6	63		314.6	329.0			24	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _b) (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
1.219	36.5	18.72	1.201	.9971	-----	27		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_a)² = 0.207

(P_d)² = _____

(P_c)² = 247.605 :

(P_w)² = 108.241 :

P_d = _____ %

(P_c - 14.4) + 14.4 = _____ :

(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" ----- Assigned Standard Slope	n x LOG []	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
247.398	139.364	1.775	.2492	.850	.2118	1.63	44

Open Flow **44**

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 29th day of April, 2014

KCC WICHITA

Witness (if any)

[Signature]
Leom, inc.

For Company

MAY 01 2014

For Commission

Checked by

RECEIVED