

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

(See Instructions on Reverse Side)

- Open Flow
- Deliverability

Test Date:
10/15 to 10/16/13

API No. 15
095-20, ~~888~~ 842-0000

Company Rains & Williamson Oil Co, Inc.			Lease Thompson		Well Number A-1
County Kingman	Location 200WofSESWSW	Section 11	TWP 30S	RNG (E/W) 07W	Acres Attributed
Field Spivey-Grabs		Reservoir Miss.	Gas Gathering Connection Lumen/WWGG		
Completion Date 7/10/79		Plug Back Total Depth 4110	Packer Set at none		
Casing Size 4.5	Weight	Internal Diameter	Set at 4095	Perforations 4095	To 4110
Tubing Size 2.375	Weight	Internal Diameter	Set at 4080	Perforations	To
Type Completion (Describe) single		Type Fluid Production Oil&SW	Pump Unit or Traveling Plunger? Yes - pump unit		Yes / No
Producing Thru (Annulus / Tubing) annulus		% Carbon Dioxide .1641	% Nitrogen 8.3283	Gas Gravity - G _g .721	
Vertical Depth(H)		Pressure Taps flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 10/12 20 13 at 1:45 pm (AM) (PM) Taken 10/15 20 13 at 1:45 pm (AM) (PM)					
Well on Line: Started 10/15 20 13 at 1:45 pm (AM) (PM) Taken 10/16 20 13 at 1:45 pm (AM) (PM)					

OBSERVED SURFACE DATA

Duration of Shut-in **72** Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter or 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						239.5	253.9			72	
Flow	.375	40	5	63		105.0	119.4			24	

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _b) (F _p) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F _g	Flowing Temperature Factor F _{tt}	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
.6860	54.4	16.49	1.178	.9971	-----	13		.721

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = **64.465** ; (P_w)² = **14.256** ; 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: $P_c^2 - P_w^2$	Backpressure Curve Slope = "n" ----- Assigned Standard Slope	n x LOG []	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
64.258	50.209	1.279	.1069	.850	.0908	1.23	16
				Assigned			

Open Flow **16** 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 6th day of November, 20 13.

Witness (if any)

Gary Allen
For Company

KCC WICHITA

NOV 12 2013

RECEIVED