

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2
(Rev. 8/98)

TYPE TEST:

- Open Flow
 Deliverability

TEST DATE: 11/15/14

API No. 15-175-22220-00-00

Company American Warrior		Lease Handy		Well Number 9-29	
County Seward	Location NE SW SW SW	Section 29-34S-31W	TWP	RNG(E/W)	Acres Attributed
Field Morrow	Reservoir Morrow	Gas Gathering Connection DCP Midstream			
Completion Date 9/4/14	Plug Back Total Depth 6440	Packer Set at N/A			
Casing Size 5.500	Weight 15.500	Internal Diameter 4.995	Set at 6495	Perforations 5958	To 5964
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.995	Set at	Perforations	To
Type Completion (Describe) New Well Gas	Type Fluid Production	Pump Unit or Traveling Plunger? PU			
Producing Thru (Annulus/Tubing) Casing	% Carbon Dioxide .356	% Nitrogen 1.787	Gas Gravity- Gg .634		
Vertical Depth (ft) 5967	Pressure Taps Flange	Meter Run Size 2.067			
Pressure Buildup: Shut in	11/11/14 @1:00P.M.	TAKEN	11/14/14 @1:00P.M.		
Well on Line: Started	11/14/14 @3:00P.M.	TAKEN	11/15/14 @3:00P.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						546	560			72.0	
Flow	.625	76.0	1.20	60	60	413	428			24.0	

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _h) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR F _g	FLOWING TEMP FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
1.914	90.4	10.42	1.2559	1.0000	1.0078	25		.634

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 314.0 (P_w)² = 183.3 P_d = % (P_c - 14.4) + 14.4 = (P_a)² = 0.207
(P_d)² =

$(P_c)^2 - (P_a)^2$	$(P_c)^2 - (P_w)^2$	$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_w)^2}$ 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
313.84	130.78	2.400	.3802	.691	.2627	1.831	46

OPEN FLOW 46 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 15th day of November, 20 14

Witness (if any)

For Commission

Received
KANSAS CORPORATION COMMISSION

American Warrior

Checked by

MAY 06 2015
CONSERVATION DIVISION
WICHITA, KS