

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

(See Instructions on Reverse Side)

Open Flow

Deliverability

Test Date:
8-13-15

API No. 15
15-155-21278-00-01

Company NOVY OIL AND GAS		Lease COLLE		Well Number 1	
County RENO	Location	Section 19	TWP 23S	RNG (E/W) 10W	Acres Atributed
Field Zenith-Peace Creek		Reservoir Viola	Gas Gathering Connection West Wichita Gas Gathering, LLC		
Completion Date April 4, 2002		Plug Back Total Depth 3,674	Packer Set at none		
Casing Size 5 1/2"	Weight 15.5#	Internal Diameter 4.950	Set at 3773'	Perforations 3662	To 3666
Tubing Size 2.875	Weight 6.5	Internal Diameter 2.441	Set at	Perforations	To
Type Completion (Describe) SINGLE GAS		Type Fluid Production WATER	Pump Unit or Traveling Plunger? YES-PUMP		Yes / No
Producing Thru (Annulus / Tubing) ANNULUS		% Carbon Dioxide	% Nitrogen	Gas Gravity - G _g .700	
Vertical Depth(H) 3664		Pressure Taps FLANGE		(Meter Run) (Prover) Size 3.068"	
Pressure Buildup:	Shut in 8-9-15	20	at 1115	(AM) (PM) Taken 8-12-15	20
Well on Line:	Started 8-12-15	20	at 1115	(AM) (PM) Taken 8-13-15	20
					at 1115 (AM) (PM)

OBSERVED SURFACE DATA

Duration of Shut-in 72.0 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	Well Head Temperature	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						234.8	249.2			72.0	
Flow	1.000	26.3	4.0		75	26.4	40.8			24.0	1.5

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _{ps}) (I _{ps}) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F _g	Flowing Temperature Factor F _n	Deviation Factor F _{ov}	Metered Flow R (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _L
4.9116	40.70	12.76	1.1952	1.0632	1.0067	80.2	NONE	0.700

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 62.1 ; (P_w)² = 1.7 ; P_d = 16.4 % ; (P_c - 14.4) + 14.4 = 249.2 ; (P_s)² = 0.207 ; (P_d)² =

(P _s) ² - (P _w) ² or (P _s) ² - (P _d) ²	(P _s) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _w 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" or Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability Equals R x Antilog (Mcf/d)
61.89	60.43	1.024	0.0104	0.850	0.0088	1.0205	81.82

Open Flow 82 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 13 day of AUGUST, 20 15

Copy to KCC Wichita
Witness (if any)

Received
KANSAS CORPORATION COMMISSION

Precision Wireline & Testing
For Company

AUG 17 2015

Mark Buehl
Checked by

For Commission

8-17-2015 CONSERVATION DIVISION
WICHITA, KS