

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: ☒ Initial		Test Date: 1-7-81	
Company: Belco Petro. Corp.		Transwestern	
Pool: Hat Mesa		Morrow	
Completion Date: 11-14-80	14,471	14,427	3929 KB
Csq. Size: 5 1/2"	Wt. 23#	d 4.892"	Set At 4.670"
Thg. Size: 2 3/8"	Wt. 4.7#	d 1.995	Set At 13950
Type Well - Single - Bradenhead - G.G. or G.C. Multiple: Single		Packer Set At 13,950	
Producing Thru Tubing: 13,924	Reservoir Temp. °F: 209 @ 13,924	Mean Annual Temp. °F: 60	Baro. Press. - P _g : 13.2
L: 13,924	H: 13,924	G _g : .6233	% CO ₂ : .819
		% N ₂ : .34	% H ₂ S: -0-
		Prover	Meter Run: 3"
			Flg.

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							2286		Pkr.		
1.	3	X	1.25	230	3"	53	2082	53			
2.	3	X	1.25	230	9"	56	1845	56			
3.	3	X	1.25	240	14"	59	1440	59			
4.	3	X	1.25	260	20"	61	822	61			
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	7.577	27.01	243.2	1.007	1.267	1.023	265.44
2	7.577	46.78	243.2	1.004	1.267	1.023	461.26
3	7.577	59.54	253.2	1.001	1.267	1.024	585.9
4	7.577	73.92	273.2	.9990	1.267	1.025	726.65
5							

NO.	P _t	Temp. °R	Z	Gas Liquid Hydrocarbon Ratio Mcf/bbl.
1	.3603	513	1.413	.955
2	.3603	516	1.421	.955
3	.3751	519	1.429	.953
4	.4047	521	1.435	.951
5				

Gas Liquid Hydrocarbon Ratio no measurable liquid Mcf/bbl.
 A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
 Specific Gravity Separator Gas _____ X X X X X X X X
 Specific Gravity Flowing Fluid _____ X X X X X
 Critical Pressure _____ 675 _____ P.S.I.A.
 Critical Temperature _____ 363 _____ R

* P_c 2299.2 P_c² 5286.3

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		2286	5226	60
2		2034	4137	1149
3		1635	2673	2613
4		1038	1077	4209
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.6007$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.144$

$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 989.38$

Absolute Open Flow 989.38 Mcfd @ 15.025 Angle of Slope θ 63.5 Slope, n 5

Remarks: Actual Plot * = 69°31' used 63.5° thru the low rate.
 * calculated from actual Bottom Hole Pressure.

Approved By Commission: <u>John D. Smith</u>	Conducted By: <u>W.S.</u>	Calculated By: <u>M.K.</u>	Checked By: <u>M.K.</u>
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