

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

File
Form C-122
Revised 9-1-65
USGS
122 file

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-5-77		RECEIVED	
Company Hanagan Petroleum Corp.				Connection None				MAY 24 1977	
Field <i>Byrne Fork public Delaware gas</i> <i>Wildest</i>				State Delaware				Unit	
Completion Date 5/23/77		Total Depth 11625		Plug Back ID 4604 4620 KB		Elevation 3454 KB		Farm or Lease Name ARTESIA, OFFICE Newman	
Csg. Size 4 1/2	Wt. 11.60	d 4.000	Set At 4920	Perforations: From 4247 To 4256		Well No. 1			
Tbg. Size 2 3/8	Wt. 4.70	d 1.945	Set At 4098	Perforations: From To		Unit Sec. Twp. Range 0 7 23S 26E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple						Packer Set At 4104		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 102 @ 4311		Mean Annual Temp. °F 70		Baro. Press. - P _a 13.2		State New Mexico	
L 4251	H 4251	G _g 0.704	% CO ₂ 0.05	% N ₂ 9.02	% H ₂ S	Prover	Meter Run X	Taps Flange	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							1645				
1.	4"	X	2"	390	2	87	1087	70	Pkr		45 min.
2.	4"	X	2"	400	8	78	974	70	Pkr		60 min.
3.	4"	X	2"	412	27	78	636	70	Pkr		60 min.
4.	4"	X	2"	417	32	78	555	70	Pkr		60 min.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super. Comp. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	19.81	28.397182	403.2	0.9750	1.192	1.036	677.3
2	19.81	57.494345	413.2	0.9831	1.192	1.038	1385.4
3	19.81	107.146620	425.2	0.9831	1.192	1.039	2584.4
4	19.81	117.330300	430.2	0.9831	1.192	1.040	2832.7
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.62	547	1.47	0.932	28.584	43.2	0.704	XXXXXX	654	372
2	0.63	538	1.45	0.928				XXXXXX		
3	0.65	538	1.45	0.926						
4	0.66	538	1.45	0.925						
5.										

NO.	P _r ²	P _s ²	P _s ²	P _r ² - P _s ²
1	1750.2	3063	632	
2	1522.2	2317	1378	
3	1126.2	1268	2427	
4	1052.2	1107	2588	
5.				

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.4277434$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 4044.4$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.4277434$

Absolute Open Flow	4044.4 Mcfd @ 15.025	Angle of Slope @	45°	Slope, n	1.000
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Remarks: BHP measured with Amerada RPG-3 gauge serial no. 10190N 0-4000 psi

Approved By Commission:	Conducted By: Tefteller, Inc.	Calculated By: G. W. Taylor	Checked By:
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