Copy to C-122

NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
APR 16 1974
O. C. C.
ARTESIA, OFFICE

Type Test: ☐ Initial ☐ Annual							Test Date: 4-9-74		
Company: Gulf Oil Co. USA				Connection: None				Unit	
Pool: Wildcat Morrow				Formation: Morrow					
Completion Date: 4-9-74		Total Depth: 10200		Plug Back TD: 10,150			Elevation: 4038 gr.	Farm or Lease Name: Gulf Franklin Federal	
Csg. Size: 7"	Wt.: 26#	d:	Set At: 10197	Perforations: From 9830	- To 9840			Well No.: #1	
Tbg. Size: 2 3/8	Wt.: 4.7	d: 1.995	Set At: 9620	Perforations: From 9870 / 9992 / 10018	To 9876 / 10,006 / 10,026			Unit: N	Sec.: 9	Twp.: 24S	Rge.: 24E
Type Well – Single – Bradenhead – G.C. or G.O. Multiple: Single				Packer Set At: 9620				County: Eddy	
Producing Thru: tubing	Reservoir Temp. °F: est 175 @ 9620		Mean Annual Temp. °F: 60		Baro. Press. – P_a: 13.2			State: New Mexico	
L: 9620	H: 9620	G_g: 0.578	% CO_2: 0.97	% N_2: 0.97	% H_2S: -	Prover: -	Meter Run: 4"	Taps: Flange	

FLOW DATA

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	Duration of Flow
							TUBING DATA		CASING DATA		
SI							3500.0		Packer	Choke	76 1/2 Hrs.
1.	4"	x	1.250"	490.0	3.5	104	3003.0	69		3/64"	75 Min.
2.	4"	x	1.250"	500.0	10.0	114	2614.0	70		6/64"	60 Min.
3.	4"	x	1.250"	510.0	19.0	112	2186.0	72		8/64"	60 Min.
4.	4"	x	1.250"	510.0	29.0	104	1680.0	72		10/64"	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 Compress. Factor, F_{pv}	Rate of Flow Q, Mcfd
1	7.469	41.97	503.2	.9602	1.315	1.029	407
2.	7.469	71.64	513.2	.9518	1.315	1.028	688
3.	7.469	99.70	523.2	.9535	1.315	1.029	961
4.	7.469	125.41	532.2	.9602	1.315	1.030	1218
5							

NO.	P_r	Temp. °R	T_r	Z
1.	0.75	564	1.62	.945
2.	0.76	574	1.64	.946
3.	0.78	572	1.64	.945
4.	0.78	564	1.62	.943
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas 0.578 XXXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 675 P.S.I.A. _____ P.S.I.A.
Critical Temperature 349 R _____ R

P_c 3513.2 P_c^2 12342.6

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_t^2$
1	9097.5			3245.1
2	6902.2			5440.4
3	4836.5			7506.1
4	2866.9	1710.6	2926.2	9475.7
5				

(1) $\frac{P_c^2}{P_c^2 - P_t^2} = 1.3025$ (2) $\left[\frac{P_c^2}{P_c^2 - P_t^2}\right]^n = 1.3025$

$A = \left[\frac{P_c^2}{P_c^2 - P_t^2}\right]^n = 1586$

passed 4-19-74

Absolute Open Flow 1586 Mcfd @ 15.025 Angle of Slope θ 45.0 Slope, n 1.000 Limit

Remarks: Friction negligible - See High Rate calculations on Form C-122 E
Good Paint Alignment but slightly greater than 1.000 Limited Slope

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	L. Davis	L. Davis - R. West	