

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

Submit in duplicate to
appropriate district office
See Rule 401 & Rule 1122

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator PHILLIPS PETROLEUM COMPANY						Lease or Unit Name GREEN B Federal					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date JUNE 22, 1993		Well No. 9			
Completion Date 6/22/93			Total Depth 10870		Plug Back TD 10870		Elevation 3698.2' GR		Unit Ltr. - Sec. - TWP - Rge. G 19 17 29		
Csg. Size 5½	Wt. 17#	d 	Set At 10870	Perforations: From: 10678 To: 10727				County EDDY			
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 10655	Perforations: From: To: 				Pool South Empire Morrow			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 10620		Formation MORROW			
Producing Thru TBG		Reservoir Temp. °F 190@10655		Mean Annual Temp. °F 60°		Baro. Press - P _a 13.2		Connection *			
L 10655	H 10655	Gg .683	% CO ₂ .419	% N ₂ .775	% H ₂ S 	Prover 		Meter Run 4.026		Taps 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							1195		PKR		72HRS
1.	4	X	1.000	255	4.00	88	900				1HR
2.	4	X	1.000	255	6.00	91	612				1HR
3.	4	X	1.000	255	5.00	95	341				1HR
4.	4	X	1.000	250	2.00	100	252				1HR
5.											

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg.	Super Compress. Factor, F _{pv} .	Rate of Flow Q, Mcfd
1.	4.770	32.75	268.2	.9741	1.210	1.027	189
2.	4.770	40.11	268.2	.9715	1.210	1.027	231
3.	4.770	36.62	268.2	.9680	1.210	1.024	210
4.	4.770	22.94	268.2	.9636	1.210	1.024	131
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	DRY GAS	Mcf/bbl.
1.	.40	548	1.42	.949	A.P. L Gravity of Liquid Hydrocarbons	DRY	Deg.
2.	.40	551	1.43	.949	Specific Gravity Separator Gas	.683	XXXXXXXXXX
3.	.40	555	1.44	.953	Specific Gravity Flowing Fluid	XXXXXX	
4.	.39	560	1.45	.954	Critical Pressure	669	P.S.I.A. P.S.I.A.
5.					Critical Temperature	385	R R

p_c 1208.2 p_c² 1459.7

NO.	p _t ²	P _w	P _w ²	p _c ² - P _w ²
1.		913.9	835.2	624.6
2.		626.8	392.8	1066.9
3.		356.6	127.2	1332.6
4.		266.5	71.0	1388.7
5.				

1) $\frac{p_c^2}{p_c^2 - P_w^2} = 1.051$ (2) $\left[\frac{p_c^2}{p_c^2 - P_w^2} \right]^n = 1.025$

AOF = Q $\left[\frac{p_c^2}{p_c^2 - P_w^2} \right]^n = .134$

Absolute Open Flow <u>134</u> Mcfd @ 15.025	Angle of Slope θ <u>63.5</u>	Slope, n <u>.500</u>
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Remarks: **NO FLUID MADE DURING TEST**

***Well currently shut in pending gas sales connection.**

Approved By Division	Conducted By: JOHN WEST ENGINEERING	Calculated By: BM	Checked By: BM
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