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See Rule 401 & Rule 1122

FEB 19 1992

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

RECEIVED

Form C-122

MAR - 9 1992

O. C. D.
OFFICE

dsf
file

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator PHILLIPS PETROLEUM						Lease or Unit Name Muskegon "17" State Com					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2-14-92		Well No. 1			
Completion Date 2/14/92			Total Depth 10880'		Plug Back TD 10756'		Elevation 3614' GL		Unit Lr. - Sec. - TWP - Rge. N. Sec. 17 T17S R29-		
Csg. Size 5 1/2"		Wt. 20#		Set At 10880'		Perforations: From: 10541' To: 10582'			County Eddy		
Tbg. Size 2 7/8"		Wt. 2.441		Set At 10481'		Perforations: From: To:			Pool S. Empire		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 10468'			Formation		
Producing Thru TUBING		Reservoir Temp. °F 179 @ 10449		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2			Connection TO AIR		
*10445		H 10445		Gg .670		% CO ₂ 2.34		% N ₂ .62		% H ₂ S	
								Prover		Meter Run 3.826	
										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							2579	63	PKR		90 HRS
1.	4	X	1.250	510	9"	95°	2275	66	" "		1 HR
2.	4	x	1.250	510	18"	93°	2129	67	" "		1 HR
3.	4	X	1.250	510	52"	70°	1852	68	" "		1 HR
4.	4	X	1.500	510	24"	91°	1602	68	" "		1 HR
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.	7.483	68.62	523.2	.9680	1.222	1.046	635
2.	7.483	97.04	523.2	.9697	1.222	1.046	900
3.	7.483	164.94	523.2	.9905	1.222	1.052	1572
4.	10.88	112.05	523.2	.9715	1.222	1.046	1514
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.77	555	1.46	.914	A.P. I Gravity of Liquid Hydrocarbons 57.1 @ 60	Deg.
2.	.77	553	1.45	.914	Specific Gravity Separator Gas	XXXXXXXXXX
3.	.77	530	1.39	.903	Specific Gravity Flowing Fluid	XXXXXX
4.	.77	551	1.45	.914	Critical Pressure 677	P.S.I.A. P.S.I.A.
5.					Critical Temperature 379	R

P_c 2848.8 P_c² 8115.6

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		2610.6	6815.2	1300.4
2.		2468.4	6092.9	2022.3
3.		2199.5	4837.8	3277.8
4.		1929.4	3722.5	4393.1
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.476$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.476$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.892$

Post ID-2
5-8-93
comp + BP

Absolute Open Flow 3,892 Mcfd @ 15.025		Angle of Slope θ 45	Slope, n 1.000
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Remarks: *= BHP INSTRUMENT SET AT THIS DEPTH.
WELL MADE 2.8 BBLs 57.1 API CONDENSATE.

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