

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

Form C-122
Revised 9-1-65

API 30-025-27990

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 9-6-83				
Company Phillips Oil Company				Connection					
Pool North Lusk Morrow				Formation Morrow				Unit	
Completion Date 3-23-83		Total Depth		Plug Back TD 13,233'		Elevation 3690.9		Farm or Lease Name GAS STATE <i>Geo</i>	
Csg. Size 5 1/2"	Wt. d	Set At	Perforations: From 13,171 To 13,220			Well No. 1- 1			
Tub. Size 2 7/8"	Wt. 6.5	d 2.441	Set At 13,059	Perforations: From To			Unit E	Sec. 2	Twp. 19S
Type Well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE				Packer Set At 12,961'		County Lea			
Producing Thru Tubing		Reservoir Temp. °F 204° @ 13,000		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State N.M.	
L 13,000	H 13,000	G _g .6876	% CO ₂ 1.382	% N ₂ 2.871	% H ₂ S	Prover	Meter Run 4"	Taps Flange	

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							3936		3450	CHOKE	72 Hrs.
1.	4	x	1.250	480	10	98	2892		3450	7/64	1 Hr.
2.	4	x	1.250	420	30	92	2130		3350	10/64	1 Hr.
3.	4	x	1.250	480	27	90	1537		3300	13/64	1 Hr.
4.	4	x	1.250	480	22	97	1030		3230	17/64	1 Hr.
5.	4	x	1.250	420	23	97	570		3200	25/64	1 Hr.

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	70.23	493.2	.9653	1.206	1.040	635
2	7.469	114.00	493.2	.9706	1.206	1.037	1034
3	7.469	115.40	493.2	.9723	1.206	1.042	1053
4	7.469	104.17	493.2	.9662	1.206	1.040	943
5	7.469	99.82	433.2	.9662	1.206	1.035	899

NO.	P _t	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.	.74	558	1.49	.924	60.9 Mcf/bbl.	50.3 @ 60° Deg.	.688	X X X X X X X X	668 P.S.I.A.	375 R
2.	.65	552	1.47	.930				X X X X X		
3.	.74	550	1.47	.921						
4.	.74	557	1.49	.924						
5.	.65	557	1.49	.933						

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		3314.7	10987.2	6767.2
2		2545.8	6481.1	11273.3
3		1922.6	3696.4	14058.0
4		1412.6	1995.4	15759.0
5		786.7	618.9	17135.5

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.036$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 931$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.036$

Absolute Oper. Flow	931 Mcfd @ 15.025	Angle of Slope @	45	Slope, n	1.000
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Remarks: *Calculated from bottom hole pressures, measured with kuster gauge Bomb set @13,000'. See Attached BHP Report.

Approved By Commission:	Conducted By: W.S.	Calculated By: R.E.R.	Checked By: R.E.R.
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