NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 5-8-72	
Company: SUN OIL COMPANY			Connection: PHILLIPS PETROLEUM CO.		
Pool: Wildcat			Formation: Morrow		Unit: none
Completion Date: 5-8-72	Total Depth: 14,330		Plug Back TD: 13,030	Elevation: K.B. = 3638	Farm or Lease Name: Shearn Federal Com.
Csg. Size: 7 5/8 / Wt.: 29.70 / d: 6.875 / Set At: 13,342			Perforations: From 12,231 To 12,239		Well No.: 1
Tbg. Size: 2 7/8 / Wt.: 6.50 / d: 2.441 / Set At: 12,160			Perforations: From - To -		Unit: L / Sec.: 15 / Twp.: 19-S / Rge.: 32-E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single			Packer Set At: 12,163		County: Lea
Producing Thru: Tubing	Reservoir Temp. °F: 175° @ 12,200		Mean Annual Temp. °F: 60	Baro. Press. – P_a: 15.025	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
12,160	12,160	.736			none	2"		

	FLOW DATA					TUBING DATA		CASING 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
SI						3229	60	1900		
1.	2"	1.250	9		81	2637	66	1900		1 hr.
2.	2"	1.250	15		82	2317	58	1900		1 hr.
3.	2"	1.250	28		80	2002	69	1900		1 hr.
4.	2"	1.250	50		71	1611	70	1900		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, Fpv	Rate of Flow Q, Mcfd
1	493			.9804	.9029	0.994	434
2.	655			.9795	.9029	1.010	585
3.	945			.9813	.9029	1.025	858
4.	1376			.9896	.9029	1.058	1301
5.							

NO.	P_t	Temp. °R	T_r	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio 5.780 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 49.8° A.P.I. Deg.
Specific Gravity Separator Gas 0.736 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 663 P.S.I.A. ____ P.S.I.A.
Critical Temperature 393° R ____ R

P_c 5968.2 P_c^2 35619.4

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		5388.2	29032.7	6586.7
2		5025.2	25252.6	10366.8
3		4685.2	21951.1	13668.3
4		3967.2	15738.7	19880.7
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.792$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.792$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2331$

Absolute Open Flow 2331 Mcfd @ 15.025 Angle of Slope θ 45.0° Slope, n 1.000

Remarks: Bottom hole pressures were measured with a bomb at 12,235 feet.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Nolan Livingston	W. H. Bayliff	Fritz Brandes