C.F.

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: 6-13-89	
Company: Phillips Petroleum Company			Connection: Phillips		
Pool: Lusk			Formation: Morrow-Atoka		Unit:
Completion Date: 5-18-89	Total Depth: 12,560		Plug Back TD: 12412	Elevation: 3550 GL	Farm or Lease Name: Lusk Deep Unit A
Csg. Size: 5 1/2 / Wt.: 17&20# / d: 4.892" 4.778" / Set At: 12554			Perforations: From 11656 To 11663; From 12203 To 12412		Well No.: 5
Tbg. Size: 2 7/8 / Wt.: 6.5 / d: 2.441 / Set At: 11300			Perforations: From Open ended		Unit: J / Sec.: 19 / Twp.: 19S / Rge.: 32E
Type Well – Single – Bradenhead – G.C. or G.O. Multiple: Single - Comingled			Packer Set At: 11300		County: Lea
Producing Thru: Tbg	Reservoir Temp. °F: 191 @ 11660	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2		State: NM

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11660	11660	.682	.13	2.05	0		4.026	Flg.

	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						3530	72	409	Choke	48 hrs.
1.	4	x 2.000	480	4.00	60	3200	71	-	10/64	1 hr.
2.	4	x 2.000	495	19.00	66	2770	68		14/64	1 hr.
3.	4	x 2.000	570	28.00	67	2392	67		17/64	1 hr.
4.	4	x 2.000	640	33.00	69	2125	65		20/64	1 hr.
5.	4	x 2.000	750	39.00	72	1735	66		24/64	1 hr.

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	19.81	44.42	493.2	1.000	1.211	1.059	1,129
2.	19.81	98.26	508.2	.9943	1.211	1.061	2,487
3.	19.81	127.79	583.2	.9933	1.211	1.062	3,234
4.	19.81	146.82	653.2	.9915	1.211	1.068	3,730
5.	19.81	172.52	763.2	.9887	1.211	1.081	4,423

NO.	P_t	Temp. °R	T_r	Z
1.	.74	520	1.37	.892
2.	.76	526	1.38	.889
3.	.88	527	1.39	.886
4.	.98	529	1.39	.876
5.	1.15	532	1.40	.856

Gas Liquid Hydrocarbon Ratio 14.8 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 55.7 @ 60° Deg.
Specific Gravity Separator Gas .682 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure *666 P.S.I.A. ____ P.S.I.A.
Critical Temperature *379 R ____ R

** P_c 3929.2 P_c^2 15438.6

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	***	3613.2	13055.2	2383.4
2		3179.5	10109.2	5329.4
3		2789.7	7782.4	7656.2
4		2499.2	6246.0	9192.6
5		2088.6	4362.3	11076.3

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.394$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.344$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5.945$

Absolute Open Flow 5.945 Mcfd @ 15.025 Angle of Slope θ 48.3 Slope, n .890

Remarks: * - corrected to 2% N2. Well made 42.1 bbls. condensate.
** - used 48 hr. shut-in BHP calculated to surface for Pc.
*** - used 1 hr. flowing BHP calculated to surface for Pw.

Approved By: JERRY SEXTON
ORIGINAL SIGNED BY JERRY SEXTON
DISTRICT I SUPERVISOR
AUG 21 1989

Conducted By: John West Engineering
Calculated By: JBM
Checked By: JBM