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: 6-21-77	Spud Date: 5-25-77
Company: Doyle Hartman	Connection: None			
Pool: Langlie Mattix	Formation: Langlie Mattix		Unit	
Completion Date: 6-21-77	Total Depth: 3700	Plug Back TD: 3660	Elevation	Farm or Lease Name: Citgo LM State
Csg. Size: 4½ / Wt.: 10.5 / d / Set At: 3700		Perforations: From 3379 To 3612		Well No.: 2
Tbg. Size: 2 3/8 / Wt.: 4.7 / d: 1.995 / Set At: 3375		Perforations: From open To end		Unit: L / Sec.: 36 / Twp.: 23 / Rge.: 36
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: None		County: Lea
Producing Thru: Tbg.	Reservoir Temp. °F: 91 @ 3375 (Est)	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
3375	3375	.686				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						155		153	shut-in	1 hr.
1.	2	x 1/16	150		87	150	87	153		45 min.
2.	2	x 3/32	149		87	149	87	153		30 min.
3.	2	x 3/16	147		85	147	85	151		30 min.
4.	2	x 5/16	133		80	133	80	145		30 min.
5.	2	x 3/8	126		79	126	79	140		30 min.

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	.06405		163.2	.9750	1.207	1.015	12
2.	.1410		162.2	.9750	1.207	1.015	27
3.	.6082		160.2	.9768	1.207	1.015	117
4.	1.672		146.2	.9813	1.207	1.015	294
5.	2.378		139.2	.9822	1.207	1.014	398

NO.	P_t	Temp. °R	T_r	Z
1.	.24	547	1.42	.971
2.	.24	547	1.42	.971
3.	.24	545	1.42	.971
4.	.22	540	1.40	.971
5.	.21	539	1.40	.972

Gas Liquid Hydrocarbon Ratio: Dry Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons: _____ Deg.

Specific Gravity Separator Gas: _____ XXXXXXXXXX

Specific Gravity Flowing Fluid: XXXXX _____

Critical Pressure: 669 P.S.I.A. _____ P.S.I.A.

Critical Temperature: 385 R _____ R

P_c 168.2 P_c^2 28.3

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		166.2	27.6	.7
2		166.2	27.6	.7
3		164.2	27.0	1.3
4		158.2	25.0	3.3
5		153.2	23.5	4.8

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 5.896$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5.170$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.058$

Absolute Open Flow: 2,058 Mcfd @ 15.025 Angle of Slope θ: 47.20 Slope, n: .926

Remarks: No fluid made during test.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	S.M. Lenamon & R.E. Reston	Reggie Reston	