STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 7/22/85	
Company: SPENCE ENERGY		Connection: NONE			
Pool		Formation: MORROW			Unit
Completion Date: 7/17/85	Total Depth: 11,670'		Plug Back TD: 11,480'	Elevation: 4303	Farm or Lease Name: FEDERAL 25
Csg. Size: 5½ / Wt.: 17 / d: 4.892 / Set At: 11,650			Perforations: From 10,532 To 10,782		Well No.: 1
Tbg. Size: 2 7/8 / Wt.: 6.5 / d: 2.441 / Set At: 10,482			Perforations: From OPEN To END		Unit: J / Sec.: 25 / Twp.: 9S / Rge.: 32E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE			Packer Set At: 10,482		County: LEA
Producing Thru: TBG	Reservoir Temp. °F: 179 @ 10,482	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
10,482	10,482	.694	.522	.893			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					2175				
1.	4.026 x 1.250	350	9	92	2110				60 MIN.
2.	4.026 x 1.250	350	17	92	2075				60 MIN.
3.	4.026 x 1.250	360	35	92	2035				60 MIN.
4.	4.026 x 1.250	360	73	90	1980				60 MIN.
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	7.469	57.17	363.2	.9706	1.200	1.035	515
2.	7.469	78.58	363.2	.9706	1.200	1.035	707
3.	7.469	114.29	373.2	.9706	1.200	1.036	1030
4.	7.469	165.06	373.2	.9723	1.200	1.036	1490
5.							

NO.	P_t	Temp. °R	T_r	Z
1	.54	552	1.42	.934
2.	.54	552	1.42	.934
3.	.56	552	1.42	.932
4.	.56	550	1.42	.932
5.				

Gas Liquid Hydrocarbon Ratio: 51.972 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 59.9 @ 60 Deg.
Specific Gravity Separator Gas: .694 / XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX / GMIX .748
Critical Pressure: 669 P.S.I.A. / 667 P.S.I.A.
Critical Temperature: 388 R / 405 R

P_c 2188.2 P_c^2 4788.2

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2123.9	4510.8	277.4
2		2089.5	4365.9	422.3
3		2051.0	4206.5	581.7
4		1999.1	3996.6	791.6
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 6.049$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 6.049$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 9.013$

Absolute Open Flow: 9,013 Mcfd @ 15.025 | Angle of Slope θ: 45 | Slope, n: 1.00

Remarks: 3BBL OF CONDENSATE MADE DURING TEST.

Approved By Division	Conducted By:	Calculated By:	Checked By:
	DUKE SERVICES, INC.	R. RESTON	