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: 07-02-90	
Company: TXO Texas Oil & Gas	Connection: 6-27-90			
Pool: N. Shugart Morrow	Formation: Morrow		Unit	
Completion Date: 6-24-90	Total Depth: 11,900	Plug Back TD: 11,856	Elevation: 3623 GR	Farm or Lease Name: Shugart St. Com. A
Csg. Size / Wt. / d / Set At		Perforations: From 11,618 To 11,736		Well No.: 1
Tbg. Size: 2 3/8 / Wt.: 4.7 / d / Set At: 11,549		Perforations: From To		Unit: C / Sec.: 16 / Twp.: 18 / Rge.: 31
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At		County: Eddy
Producing Thru: Tbg	Reservoir Temp. °F: 191 @ 11,676	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
*11,676	*11,676	.678	.57	1.04	---		3.068	Flg

NO.	FLOW DATA: Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							2327		PKR		72 hrs.
1.	3	X	.750	131	112.50	106	2092		PKR		1 hr.
2.	3	X	.750	131	162.00	100	1825		PKR		1 hr.
3.	3	X	2.000	139	5.12	99	1410		PKR		1 hr.
4.	3	X	2.00	139	6.48	103	1202		PKR		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	2.672	127.37	144.2	.9585	1.214	1.011	400
2.	2.672	152.84	144.2	.9636	1.214	1.012	483
3.	21.32	27.92	152.2	.9645	1.214	1.012	705
4.	21.32	31.41	152.2	.9610	1.214	1.012	791
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.21	566	1.50	.978
2.	.21	560	1.48	.977
3.	.22	559	1.48	.976
4.	.22	563	1.49	.976
5.				

Gas Liquid Hydrocarbon Ratio 198.4 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 53.9 @ 60 Deg.
Specific Gravity Separator Gas .678 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure **666 P.S.I.A. ____ P.S.I.A.
Critical Temperature **376 R ____ R

P_c 2569.5 P_c^2 6602.3

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2334.2	5444.5	1157.8
2		2295.0	5267.0	1335.3
3		2210.8	4887.6	1714.7
4		2069.5	4282.8	2319.5
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.846$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.846$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.251$

Absolute Open Flow 2,251 Mcfd @ 15.025 Angle of Slope θ 45 Slope, n 1.000

Remarks: *= BHP's extrapolated to this depth
**= corrected to 1.04% N_2
Well made ½ BBL 53.9 API condensate & 6.5 BBLS H2O

Approved By Division	Conducted By:	Calculated By:	Checked By:
		BM	BM