NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

File 122 Form C-122 Revised 9-1-65

RECEIVED

JUL 2[illegible]

Type Test: [X] Initial [ ] Annual [ ] Special					Test Date: 7-16-79			
Company: TEXAS OIL & GAS CORP. ✓			Connection: EPNG Co.					
Pool: NORTH SHUGART Morrow			Unit: MORROW					
Completion Date: 7-9-79		Total Depth: ~~11,955~~ 12000'		Plug Back TD: ~~11,950~~ 11955'	Elevation: 3665 gr.		Farm or Lease Name: SHUGART STATE COM	
Csg. Size: 5½"	Wt.: 17#	d: 4.892"	Set At: 11,950'	Perforations: From 11,706'	To 11,863'		Well No.: 1	
Tbg. Size: 2 3/8"	Wt.: 4.6"	d: 1.995"	Set At: 11,630'	Perforations: From OPEN ENDED			Unit: N Sec.: 16 Twp.: 18s Rge.: 31E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE				Packer Set At: 11,630'			County: EDDY	
Producing Thru: TUBING	Reservoir Temp. °F: 190 @ 11,630'		Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2			State: NEW MEXICO	
L: 11630	H: 11630	Gg: .699	% CO_2: .47	% N_2: .553	% H_2S:	Prover:	Meter Run: 3"	Taps: FLANGE

	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						3052	76	PACKER	CHOKE	92 HRS
1.	3"	x 1.250"	629	9.6	62	2982	76			1 HR
2.	3"	x 1.250"	625	31.4	55	2835	76			1 HR
3.	3"	x 1.250"	626	44.9	60	2720	77			1 HR
4.	3"	x 1.250"	625	100.0	59	2630	78			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	7.577	78.52	642.2	0.998	1.196	1.077	765
2	7.577	141.56	638.2	1.005	1.196	1.081	1394
3	7.577	169.41	639.2	1.000	1.196	1.079	1656
4	7.577	252.63	638.2	1.001	1.196	1.079	2473
5							

NO.	P_t	Temp. °R	T_r	Z
1	.96	522	1.35	.862
2	.95	515	1.33	.856
3	.95	520	1.34	.859
4	.95	519	1.34	.859
5				

Gas Liquid Hydrocarbon Ratio 39,179 Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons 53 @ 60 Deg.

Specific Gravity Separator Gas .699 XXXXXXXXX

Specific Gravity Flowing Fluid XXXXX

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

Critical Temperature 388 R _____ R

P_c 3346.8 P_c^2 11201.1

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		*3298.2	10878.1	323.0
2		*3261.7	10638.7	562.4
3		*3221.2	10376.1	825.0
4		*3167.8	10035.0	1166.1
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2}$ = 9.606 (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 8.088

$\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 20.002

Absolute Open Flow 20,002 Mcfd @ 15.025 Angle of Slope θ 47.250 Slope, n .924

Remarks: MADE 6.9 BBLS OF CONDENSATE DURING THE TEST. BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 11,630 FEET. *CALCULATED FROM KNOWN BOTTOM HOLE PRESSURE.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	W.S.	R.R.	J.W.