NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-12
Revised 9-1-

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 6-12-80	
Company: Grace Petroleum Co.		Connection: Gas Company of New mexico			
Pool: South Salt Lake		Formation: Morrow		Unit	
Completion Date: 5-16-80	Total Depth: 14250'	Plug Back TD: 14167'	Elevation: 3676' KB	Farm or Lease Name: New Mexico Fed. "L"	
Csg. Size: 5.5" / Wt. / d / Set At: 14250'		Perforations: From 13836' To 14136		Well No.: 1	
Tbg. Size: 2.875" / Wt. / d: 1.445 / Set At: 13670'		Perforations: From To		Unit: L Sec.: 6 Twp.: 21S Rge.: 32E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 13670'		County: Lea	
Producing Thru: Tubing	Reservoir Temp. °F: 188° @ 13983	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
13983	13983	.6099	.49	.29	0		X	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						4400	80°	Packer		72 hr.
1.	2.0"	1.5"	370	13.7"	58°	3810	78°			1 hr.
2.	2.0"	1.5"	504	42.3	58°	3360	80°			1 hr.
3.	2.0"	1.5"	518	95.8	56°	2720	84°			1 hr.
4.	2.0"	1.5"	533	169	56°	1986	86			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	12.76	72.46	383.2	1.002	1.281	1.036	1229
2	12.76	147.91	517.2	1.002	1.281	1.050	2544
3	12.76	225.59	531.2	1.004	1.281	1.050	3887
4	12.76	303.82	546.2	1.004	1.281	1.051	5240
5							

NO.	P_t	Temp. °R	T_r	Z
1	.57	518°	1.43	.931
2	.77	518°	1.43	.907
3	.79	516°	1.43	.907
4	.81	516°	1.43	.906
5				

Gas Liquid Hydrocarbon Ratio 113.47 Mcf/
A.P.I. Gravity of Liquid Hydrocarbons 59° (est.)
Specific Gravity Separator Gas .6099 XXXXXXXX
Specific Gravity Flowing Fluid XXXXX .635
Critical Pressure 671 P.S.I.A. 670 P.S.I.
Critical Temperature 362 R 372

P_c 4413.2 P_c^2 19476

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		3879.0	15047	4429
2		3454.0	11930	7546
3		2853.3	8141	11336
4		2038.3	4122	15354
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.26846$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.2684$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 6647$

Absolute Open Flow 6647 Mcfd @ 15.025 Angle of Slope θ 45° Slope, n 1.00

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
Orig. Signed by Jerry Sexton Dist. I, Supv.		H. L. Hagler	