NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [XX] Initial [ ] Annual [ ] Special				Test Date: 2-22-86	
Company: Grace Petroleum Corporation		Connection: Gas Company of New Mexico			
Pool: Undesignated		Formation: Atoka		Unit	
Completion Date: 2-13-86	Total Depth: 14417' MD	Plug Back T.D.: 13795' MD	Elevation: 3606' KB	Farm or Lease Name: Felmont Federal	
Csg. Size: 5-1/2" / Wt.: 17 / d: 4.892 / Set At: 14387'		Perforations: From 13362' MD To 13372' MD		Well No.: 2	
Tbg. Size: 2-7/8 / Wt.: 6.5 / d: 2.441 / Set At: 13266		Perforations: From Open Ended To		Unit: N(BH) / Sec.: 25 / Twp.: 20-S / Rge.: 32-E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 13266		County: Lea	
Producing Thru: Tubing	Reservoir Temp. °F: 184@ 13367	Mean Annual Temp. °F: 74	Baro. Press. – P_a: 13.2	State: New Mexico	
L: 13367 / H: 13367 / Gg: .690	% CO_2	% N_2	% H_2S	Prover	Meter Run / Taps

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					4281		Pkr.		48 hrs.
1.	2.067 x .750	755	20	64	2400				1 hr.
2.	2.067 x .750	755	37	65	2045				1 hr.
3.	2.067 x .750	760	60	65	1800				1 hr.
4.	2.067 x .750	765	88	66	1800				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	2.709	123.9	768	.9962	1.204	1.094	441
2	2.709	168.6	768	.9952	1.204	1.094	599
3	2.709	215.4	773	.9952	1.204	1.094	765
4	2.709	261.7	778	.9943	1.204	1.094	928
5							

NO.	P_t	Temp. °R	T_r	Z
1	1.15	524	1.35	.835
2.	1.15	525	1.35	.835
3.	1.15	525	1.35	.835
4	1.16	526	1.36	.835
5				

Gas Liquid Hydrocarbon Ratio: 19 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 48 Deg.
Specific Gravity Separator Gas: .690 / XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX / .831
Critical Pressure: 669 P.S.I.A. / 666 P.S.I.A.
Critical Temperature: 388 R / 410 R

P_c 7213 P_c^2 52897

NO	P_t^2	** P_w	P_w^2	$P_c^2 - P_w^2$
1		5370	28837	24060
2		4762	22677	30220
3		4067	16540	36357
4		3892	15148	37749
5				

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

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1300

Absolute Open Flow: 1300 Mcfd @ 15.025 | Angle of Slope θ: 45.0 | Slope, n: 1.000

Remarks: 6 bbls. Oil @ 48
** Amerada Instrument RP 6-3 - Serial 67868

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Thurmond-McGlothlin, Inc.	J. W. Chisum	