NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: ☒ Initial ☐ Annual ☐ Special			Test Date: 3-29-77	
Company: Continental Oil Co	Connection: Transwestern Gas Co.			
Pool: Morrow	Formation:		Unit:	
Completion Date: 2-10-77	Total Depth: 13960	Plug Back TD: 13904	Elevation: GL 3637'	Farm or Lease Name: Bell Lake Unit
Csg. Size: 5 / Wt.: 18 / d: / Set At: 13957	Perforations: From 13762 13766 To 13822 13828			Well No.: 18
Tbg. Size: 2 7/8 / Wt.: 6.5 / d: / Set At: 11571	Perforations: From To			Unit: I / Sec.: 36 / Twp.: 23S / Rge.: 34E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 11487		County: Lea
Producing Thru: Tbg	Reservoir Temp. °F:	Mean Annual Temp. °F:	Baro. Press. – P_a:	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
13761	11571	.588	0.0050	0.0032			4"	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	4.026	2.500				4945	48°			6 HR. S.I.
1.	4.026	2.500	727	11	98°	4869	82°			1 HR
2.	4.026	2.500	727	39.5	109°	4745	88°			1 HR ✱
3.	4.026	2.500	732	88"	102°	4539	98°			1 HR
4.	4.026	2.500	742	37"	95°	4285	105°			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	32.64	90.2219	740	.9653	1.304	1.048	3,885 MCFD
2.	32.64	170.9678	740	.9560	1.304	1.044	7,263 MCFD
3.	32.64	256.0469	745	.9619	1.304	1.048	10,986 MCFD
4.	32.64	167.1377	755	.9680	1.304	1.051	14,475 MCFD
5.							

NO.	P_r	Temp. °R	T_r	Z
1	1.1012	558	1.5718	.910
2.	1.1012	569	1.6028	.917
3.	1.1086	562	1.5831	.911
4.	1.1235	555	1.5634	.905
5.				

Gas Liquid Hydrocarbon Ratio 2942 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 47.4 Deg.
Specific Gravity Separator Gas .588 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure ____ P.S.I.A. ____ P.S.I.A.
Critical Temperature ____ R ____ R

P_c 6717.3 P_c^2 45,122

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		6590.8	43,439	1683
2	✱	6504.6	42,310	2812
3		6368.8	40,562	4560
4		6220.4	38,693	6429
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 16.046$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 10.5525$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 76,643$

Absolute Open Flow 76,643 Mcfd @ 15.025 | Angle of Slope θ 40.33° | Slope, n .849

Remarks: 4TH RATE RUN ON TWO METER RUNS WITH THE ABOVE AVG.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
		Jo Butterfield	