

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

Form C-122  
Revised 9-1-65

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 5-17-82							
Company AMOCO PRODUCTION COMPANY			Connection LLANO								
Pool BUFFALO PENN			Formation MORROW			Unit					
Completion Date 02 16 82		Total Depth 13703.		Plug Back TD 13659.		Elevation 3713.	Farm or Lease Name DUNN FEDERAL COM				
Csg. Size 5.500	Wt. 23.0	d 4.670	Set At 13703.	Perforations: From 13601.    To 13612.		Well No. 2					
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 13614.	Perforations: From 0.    To 0.		Unit 9	Soc. Twp. Hje. 19S 33E				
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At 13492.		County LEA					
Producing Thru TUBING		Reservoir Temp. °F 162. @ 13606.		Mean Annual Temp. °F 60.0		Baro. Press. - P <sub>a</sub> 13.2	State NEW MEXICO				
L 13606.	H 13606.	G <sub>g</sub> 0.666	% CO <sub>2</sub> 0.76	% N <sub>2</sub> 0.82	% H <sub>2</sub> S 0.	Prover 0.	Meter Run 3.1 FLANGE				
FLOW DATA				TUBING DATA		CASING DATA		Duration of Flow			
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.		Temp. °F	Press. p.s.i.g.	Temp. °F
SI							3055.	66.			48.0
1.	3.07 x 2.000			470.	5.0	81.	2826.	70.	0.	0.	1.0
2.	3.07 x 2.000			475.	13.0	69.	2714.	72.	0.	0.	0.5
3.	3.07 x 2.000			480.	25.0	57.	2537.	74.	0.	0.	0.5
4.	3.07 x 2.000			480.	55.0	49.	2176.	76.	0.	0.	0.5
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd				
1	21.32	49.15	483.2	0.9804	1.2256	1.0446	1315.				
2.	21.32	79.67	488.2	0.9915	1.2256	1.0484	2163.				
3.	21.32	111.04	493.2	1.0029	1.2256	1.0537	3066.				
4.	21.32	164.70	493.2	1.0107	1.2256	1.0572	4598.				
5.											
NO.	P <sub>r</sub>	Temp. °R	T <sub>r</sub>	Z	Gas Liquid Hydrocarbon Ratio _____ 15.3 _____ Mcf/bbl.						
1.	0.72	541.	1.44	0.916	A.P.I. Gravity of Liquid Hydrocarbons _____ 56.8 _____ Deg.						
2.	0.73	529.	1.41	0.910	Specific Gravity Separator Gas _____ 0.666 _____		X X X X X X X X				
3.	0.73	517.	1.38	0.901	Specific Gravity Flowing Fluid _____ X X X X X _____		0.830				
4.	0.73	509.	1.36	0.895	Critical Pressure _____ 671. _____ P.S.I.A.		663. P.S.I.A.				
5.					Critical Temperature _____ 376. _____ R		427. R				
P <sub>c</sub> 3068.2		P <sub>c</sub> <sup>2</sup> 9414									
NO	P <sub>r</sub> <sup>2</sup>	P <sub>w</sub>	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.3113$		(2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.3113$				
1	8061.	2834.	8030.	1384.							
2	7438.	2737.	7491.	1923.							
3	6504.	2586.	6689.	2725.							
4	4793.	2311.	5341.	4073.	AOF = Q $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 10627$						
5											
Absolute Open Flow _____ 10627 _____ Mcfd @ 15.025					Angle of Slope θ _____ 45.0 _____		Slope, n _____ 1.000 _____				
Remarks: _____											
Approved By Commission:			Conducted By: John West			Calculated By: Steve Bates		Checked By: L. W. Sheppard			