

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 10/17/79						
Company Amoco Production Company				Connection Gas Company of New Mexico							
Pool Wildcat				Formation Atoka				Unit			
Completion Date 07/10/79		Total Depth 14428.		Plug Back TD 14380.		Elevation 3623.		Farm or Lease Name Federal Y <i>Com</i>			
Csg. Size 4.50	Wt. 13.5	d 3.910	Set At 14428	Perforations: From 13020 To 13114			Well No. 1				
Thq. Size 2.375	Wt. 4.7	d 1.995	Set At 13112.	Perforations: From 0 To 0.			Unit Sec. Twp. Rje. G 27 20S 33E				
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 12322.			County Lea			
Producing Thru Tubing		Reservoir Temp. *F 72 @ 12872		Mean Annual Temp. *F 60.0		Baro. Press. - P _a 13.2		State New Mexico			
L 12872.	H 12872.	G _q 0.671	% CO ₂ 0.40	% N ₂ 2.40	% H ₂ S 0.	Prover 0.	Meter Run 4.0	Taps Flange			
FLOW DATA					TUBING DATA			CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. *F	Press. p.s.i.g.	Temp. *F	Press. p.s.i.g.		Temp. *F
SI							3982.	72.			43.0
1.	4.03 x 2.250			460.	1.0	77.	3685.	72.	0.	0.	0.5
2.	4.03 x 2.250			460	2.6	81.	3452.	74.	0.	0.	0.7
3.	4.03 x 2.250			460.	4.0	77.	3300.	74.	0.	0.	0.7
4.	4.03 x 2.250			465.	5.3	70.	3076.	74.	0.	0.	0.7
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _l	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd				
1	25.64	21.75	473.2	0.9840	1.2208	1.0443	700.				
2.	25.64	34.81	473.2	0.9804	1.2208	1.0432	1114.				
3.	25.64	43.51	473.2	0.9840	1.2208	1.0443	1400.				
4.	25.64	50.30	478.2	0.9905	1.2208	1.0466	1632.				
5.											
NO.	P _r	Temp. *R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ 23.2 Mcf/bbl.						
1.	0.71	537.	1.44	0.917	A.P.I. Gravity of Liquid Hydrocarbons _____ 54.2 Deg.						
2.	0.71	541.	1.45	0.919	Specific Gravity Separator Gas _____ 0.671		X X X X X X X X X X				
3.	0.71	537.	1.44	0.917	Specific Gravity Flowing Fluid _____ X X X X X		0.784				
4.	0.72	530.	1.42	0.913	Critical Pressure _____ 667. P.S.I.A.		661. P.S.I.A.				
5.					Critical Temperature _____ 373. R		409. R				
P _c 3966.8 P _w ² 15736											
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.5554$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.1714$				
1	13677.	3677.	13518.	2218.							
2	12008.	3449.	11897.	3838.							
3	10977.	3307.	10933.	4802.							
4	9543.	3095.	9578.	6158.	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3544$						
5											
Absolute Open Flow _____ 3544. Mcfd @ 15.025					Angle of Slope θ _____ 50.4		Slope, n _____ 0.826				
Remarks: _____											
Approved By Commission:			Conducted By: John West Engrg.			Calculated By: C.C. Weaver			Checked By: W.D. Magness		