

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 7/1/81		JUL 10 1981	
Company Western Reserves Oil Company ✓				Connection None					
Pool Undesignated <i>Abo</i>				Formation Abo				Unit O.C.D. ARTESIA, OFFICE	
Completion Date 6/22/81		Total Depth 3981'		Plug Back TD 3940'		Elevation 3951' KB		Farm or Lease Name Bevmor 24 Federal	
Ceq. Size 4 1/2"	Wt. 10.5	d 4.052	Set At 3940	Perforations: From 3785 To 3855				Well No. 2	
Thg. Size 2 3/8"	Wt. 4.6	d 1.995	Set At 3780	Perforations: Open Ended From To				Unit Sec. Twp. Rye. F 24 5s 24e	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single						Packer Set At None		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 96 @ 3820'		Mean Annual Temp. °F 60		Baro. Press. - P ₀ 13.2		State New Mexico	
L 3820	H -	G _g 0.6808	% CO ₂ 1.362	% N ₂ 8.083	% H ₂ S -	Prover -	Meter Run 2.900	Taps F	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g. DWT	Temp. °F	Press. p.s.i.g. DWT	Temp. °F	
SI							975	60	975	60	72.0 hrs
1.	2.900	6/48	0.500	270	18	82	954		955		1.0 hr
2.	2.900	7/48	0.500	300	44	84	933		935		1.0 hr
3.	2.900	8/48	0.750	290	24	86	888		892		1.0 hr
4.	2.900	9/48	0.750	300	52	85	816		820		1.0 hr
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor F _{pv}	Rate of Flow Q, Mcfd
1	1.184	71.40	283.2	0.9795	1.212	1.021	102.47
2	1.184	117.39	313.2	0.9777	1.212	1.024	168.65
3	2.675	85.30	303.2	0.9759	1.212	1.023	276.09
4	2.675	127.62	313.2	0.9768	1.212	1.023	413.45
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry Gas _____ Mcf/bbl.	
1	0.43	542	1.52	0.959	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.	
2	0.47	544	1.52	0.954	Specific Gravity Separator Gas _____ 0.6808 _____ XXXXXXXXXX	
3	0.46	546	1.53	0.956	Specific Gravity Flowing Fluid _____ XXXXXX _____	
4	0.47	545	1.53	0.955	Critical Pressure _____ 661 P.S.I.A. _____ P.S.I.A.	
5					Critical Temperature _____ 357 °R _____ °R	

NO.	P _t	P _w *	P _w ²	P _c ² - P _w ²	$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 36.64$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7.84$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 803$
1		1076.2	1158.2	32.5	
2		1053.2	1109.2	81.5	
3		1002.2	1004.2	186.3	
4		939.2	882.1	308.6	

Absolute Open Flow _____ 803 _____ Mcfd @ 15.025		Angle of Slope θ _____ 60° 13'		Slope, n _____ 0.572	
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Remarks: * BOTTOM HOLE PRESSURE @ (+119)3820' USED FOR PRESSURE CALCULATIONS

Approved By Division	Conducted By: JARREL WELL TESTING	Calculated By: Joe A. Coleman	Checked By: PE#2208 Joe A. Coleman
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