

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

Form C-1
Revised 4-5-64
File

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O. C. D.
ARTESIA, OFFICE

Type Test 4 POINT ☒ Initial ☐ Annual ☐ Special					Test Date 11-27-84	
Company MCKAY OIL COMPANY				Connection TO AIR		
Pool <i>Wichita</i>				Formation ABO		
Completion Date 8-30-84		Total Depth 4010.		Plug Back TD 3573.		Elevation 3554.
Perforations: From 3474. To 3484.						Lease or Lease Name MCKAY BERRENDO
Csg. Size 4.500		ID 10.5		Set At 4.052		Well No. # 1-Y
Tub. Size 2.375		ID 4.7		Set At 1.995		Unit 1 2 10S 24F
Type Well - Single - Brasshead - G.G. or G.O. Multiple SINGLE					Packer Set At	
Producing Thru TUBING				Reservoir Temp. °F 94 @ 3479.		State NEW MEXICO
Mean Annual Temp. °F 60.0				Baro. Press. - P _a 13.2		
L 3479.		H 3479.		G _g 0.687	% CO ₂ 0.94	% N ₂ 20.43
				% H ₂ S 0.	Prover 0.	Meter Run 2.0
						FLANGE

FLOW DATA							TUBING DATA		CASING DATA		Duration
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	of Flow
1.	2.00 X 0.125			390.	0.	30	690.		690.	6/64	1.0
2.	2.00 X 0.125			630.	0.	34.	650.		650.	8/64	1.0
3.	2.00 X 0.188			410.	0.	38.	570.		570.	10/64	1.0
4.	2.00 X 0.188			420.	0.	44.	335.		470.	12/64	1.0
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, F _{pv}	Rate of Flow Q, Mhd
1	0.26	0.	403.2	1.0302	1.2065	1.0342	137.
2	0.26	0.	643.2	1.0260	1.2065	1.0529	222.
3	0.61	0.	423.2	1.0218	1.2065	1.0337	327.
4	0.61	0.	433.2	1.0157	1.2065	1.0330	333.
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	0.63	490.	1.49	0.935	0.	0.	0.687	X X X X X X X X	637.	329.
2.	1.01	494.	1.50	0.902				X X X X X		
3.	0.66	498.	1.52	0.936						
4.	0.68	504.	1.53	0.937						
5.										

$P_c = 773.2$ $P_c^2 = 598.$					$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.3268$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.2609$	
NO.	P _r	P _w	P _w ²	P _c ² - P _w ²				
1	494.	705.	497.	101.				
2	440.	664.	441.	156.				
3	340.	584.	341.	257.				
4	233.	484.	234.	364.				
5								

$Q = 739.$ $Q = 739.$					$Q = 739.$	
Absolute Open Flow					Angle of Slope	
739.					46.0	
Mhd @ 15.025					Slope, n = .966	
Remarks:						
Approved By Commission:		Conducted By:		Calculated By:		Checked By:
		RICHARD TOWNLEY		BENNETT & CATHEY INC.		