

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

Form C-122
Revised 10-65

JAN 2 1973

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date Nov. 9, 1972				
Company Midwest Oil Corporation					Connection None				
Pool South Carlsbad <i>Morrow</i>					Formation Morrow				
Completion Date Nov. 1, 1972		Total Depth 11,850		Plug Back TD 11,759		Elevation GL - 3299 KB - 3317.5		Farm or Lease Name <i>N.M. W State W</i>	
Csg. Size 4 1/2	Wt. 11.60	d 3.995	Set At 11815	Perforations: From 11,331 To 11,655				Well No. 1	
Tbg. Size 2 3/8	Wt. 4.7	d	Set At 11,212	Perforations: From To				Unit Sec. Twp. Rye. G 3 23 26	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 11,206			County Eddy	
Producing Thru Tbg.		Reservoir Temp. °F 200° 11,493		Mean Annual Temp. °F 71		Baro. Press. - P _a 13.2		State New Mexico	
L 11,493	H 11,493	Gg .586	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run 4	Taps Flg.	

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.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							3400	71			48 hrs.
1.	4	x	1.250	290	4.0	79	3309	74			1 3/4 hrs.
2.	4	x	1.250	298	13.0	81	3228	68			1 3/4 hrs.
3.	4	x	1.250	300	31.5	88	3110	63			2 hrs.
4.	4	x	1.250	300	59.5	92	2700	65			4 hrs.
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	7.469	34.83	303.2	.9822	1.306	1.022	341
2	7.469	63.30	308.2	.9804	1.306	1.022	619
3	7.469	99.33	313.2	.9741	1.306	1.021	964
4	7.469	136.51	313.2	.9706	1.306	1.021	1,320
5.							

NO.	P _t	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.	.45	539	1.54	.950	Dry	---	.586	XXXXXXX	672 P.S.I.A.	350 R
2.	.46	541	1.55	.958						
3.	.47	548	1.57	.959						
4.	.47	552	1.58	.960						
5.										

P _c 3428.6 P _w 11755.3		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 6.734$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 6.734$	
NO.	P _t	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n$
1	*	3333.4	11111.6	643.7	6.491
2	*	3252.0	10640.6	1114.7	
3	*	3163.8	10009.6	1745.7	
4	*	2948.8	8695.4	3059.9	
5					

Absolute Open Flow 6,491 Mcfd @ 15.025		Angle of Slope θ 45.0		Slope, n 1.000	
Remarks: No fluid made during test.					
* P _c and P _w calculated from known BHP that were taken during test period.					
Approved By Commission:		Conducted By: J. C. Roberts and Randy Kiker		Calculated By: J. B. Roberts	
				Checked By: J. B. Murray	