

N.L. MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Rev. 9-1-65

SEP 17 1971

Type Test ☐ Initial ☐ Annual ☒ Special				Test Date 9-9-71		D.C.C. ARTESIA, OFFICE	
Company Midwest Oil Corporation				Connection Transwestern Pipeline			
Pool Buffalo Valley (Penn)				Formation Atoka-Penn		Unit	
Completion Date 2-24-71		Total Depth 8703'		Plug Back TD 8668'		Elevation 3548'	
Farm or Lease Name <i>New Mexico State Com</i>							
Csg. Size 4 1/2"	Wt. 11.64	d 4.0"	Set At 8703'	Perforations: From 8459' To 8475'		Well No. 1	
Tbg. Size 2 3/8"	Wt. 4.74	d 1.995"	Set At 8458'	Perforations: From 8412' To 8422'		Unit Sec. Twp. Rge. 0 6 15-6 28-E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single Gas - Dist.				Packer Set At 8375'		County Chaves	
Producing Thru 2 3/8" tbg		Reservoir Temp. °F 148 @ 8400'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico							
L 8458	H 8458	Gg .694	% CO ₂ 0.34	% N ₂ 1.15	% H ₂ S Less .05	Prover --	Meter Run 4"
Taps Flange							

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							2204				48
1.	4"		1.75"	780	5	94	2117	68	Packer		1.13
2.	"		"	810	20	90	1975	69	"		1.13
3.	"		"	819	44	88	1775	75	"		1.13
4.	"		"	833	97	90	1313	70	"		1.13
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	13.01	63.0	793.2	.9688	1.200	1.074	1,181
2	13.01	128.3	823.2	.9723	1.200	1.080	2,427
3	13.01	191.4	832.2	.9741	1.200	1.082	3,634
4	13.01	286.4	846.2	.9723	1.200	1.081	5,422
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 27.33 Mcf/bbl.
1	1.18	554	1.44	.867	A.P.I. Gravity of Liquid Hydrocarbons 61 Deg.
2	1.23	550	1.43	.858	Specific Gravity Separator Gas .694 X X X X X X X X
3	1.24	548	1.42	.854	Specific Gravity Flowing Fluid X X X X X
4	1.26	550	1.43	.855	Critical Pressure 671 P.S.I.A. 13.2 P.S.I.A.
5					Critical Temperature 385 R

P _c 3083.2	P _c ² 9,506	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \mathbf{6.657}$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \mathbf{3.810}$
NO.	P _t ²	P _w ²	P _c ² - P _w ²
1	2991.2	8,947	559
2	2842.2	8,078	1428
3	2636.2	6,950	2556
4	2172.2	4,718	4788
5			

Absolute Open Flow 9,246 Mcfd @ 15.025		Angle of Slope Θ 55	Slope, n .704
Remarks:			
Approved By Commission:	Conducted By: D. T. Stogner	Calculated By: D. T. Stogner	Checked By: