

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

Form C-122
 Revised 9-1-75

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 9/26/79	
Company SHELL OIL COMPANY				Connection UNCONNECTED	
Pool ANTELOPE RIDGE (MORROW GAS)				Formation MORROW.	
Completion Date		Total Depth 13,758'		Plug Back TD 13,658'	
		Elevation 3499'		Unit ANTELOPE RIDGE	
Csg. Size 5-1/2		Wt. 22.54		Perforations: From 13,216 To 13,643	
Tbg. Size 2-7/8		Wt. 6.5		Perforations: From 13,216 To 13,643	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple NA				Packer Set At 13,100	
Producing Thru TBG		Reservoir Temp. °F # 183		Mean Annual Temp. °F 82	
		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 13,100		H 13,100		Prover 4.026	
G _g .615		% CO ₂ 0		% H ₂ S 0	
				Meter Run 4.026	
				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							5160	80	Packer		95 hrs.
1.	4	X	2.75	290	9	80	4075	81			1 hr
2.	4	X	2.75	315	15	64	3455	84			1 hr
3.	4	X	2.75	340	27	72	2470	85			1 hr
4.	4	X	2.75	340	41	74	1292	86			1 hr
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	41.1	52.24	303.2	.9813	1.275	1.024	2750
2	41.1	70.14	328.2	.9962	1.275	1.030	3772
3	41.1	97.65	353.2	.9887	1.275	1.031	5216
4	41.1	120.34	353.2	.9868	1.275	1.030	6409
5							

NO.	R	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	.45	540	1.49	.953	0	
2	.49	524	1.44	.942	A.P.I. Gravity of Liquid Hydrocarbons	Deq.
3	.53	532	1.46	.94	Specific Gravity Separator Gas	.615
4	.53	534	1.47	.943	Specific Gravity Flowing Fluid	X X X X X X X X
5					Critical Pressure	671 P.S.I.A.
					Critical Temperature	363 R

$P_e = 6847$ $P_e^2 = 46844 \times 10^3$				$(1) \frac{P_e^2}{P_w^2 - P_e^2} = 2.08$ $(2) \left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 1.86$	
NO.	P _e ²	P _w	P _e ²	P _e ² - P _w ²	
1	32515x10 ³			14369x10 ³	
2	24366x10 ³			22518x10 ³	
3	13832x10 ³			33052x10 ³	
4	4810			42074x10 ³	
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Absolute Open Flow		7011	Mcf/d @ 15.025	Angle of Slope @	Slope, n	.8464
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Remarks:			
Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	B. G. Ryahs	Q. B. Nguyen	