

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 2-21-83			
Company SHELL OIL COMPANY				Connection				
Pool ATOKA/MORROW				Formation ATOKA				Unit ANTELOPE RIDGE UNIT
Completion Date 2-17-83		Total Depth 14,832'		Plug Back TD 13,065'		Elevation 3465' GL		Farm or Lease Name ANTELOPE RIDGE UNIT
Csg. Size	Wt.	d	Set At	Perforations: From 12,093' To 12,465'			Well No. 1	
Tbg. Size 2"	Wt.	d	Set At 11,725'	Perforations: From To			Unit Sec. Twp. Rge. N 27 23-S 34-E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE					Packer Set At 11,725' to 11,728'		County LEA	
Producing Thru TBG		Reservoir Temp. °F 12279 @ 180°		Mean Annual Temp. °F		Baro. Press. - P _a 13.2		State NEW MEXICO
L	H	G _g	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run	Taps
		.707						

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.	
SI							6022	46	PKR	
1.	4.826		1.750	105	5	62	5070	58		1 HR.
2.	4.826		1.750	120	9.5	82	4280	62		1 HR.
3.	4.826		1.750	120	20	82	3290	64		1 HR.
4.	4.826		1.750	125	44	79	2165	66		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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	15.01	24.31	118.2	1.014	1.189	1.014	446
2		35.57	133.2	1.002	1.189	1.015	646
3		51.61	133.2	.9981	1.189	1.015	933
4		78.00	138.2	.9943	1.189	1.016	1406
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ .43 Mcf/bbl.
1.	9.626	506	1.54	1.104	A.P.I. Gravity of Liquid Hydrocarbons _____ 51.6 Deg.
2.	8.85	506	1.54	1.051	Specific Gravity Separator Gas _____ .707 X X X X X X X X
3.	7.13	506	1.54	.938	Specific Gravity Flowing Fluid _____ .777 X X X X X
4.	4.39	506	1.54	.803	Critical Pressure _____ 668 P.S.I.A. 666 P.S.I.A.
5.					Critical Temperature _____ 392 R 415 R

P _c 6125.4 P _c ² 37520.2				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		5509.7	30356.6	7163.6
2		5026.4	25264.7	12255.5
3		3957.2	15659.7	21860.5
4		2359.7	5568.0	31952.2
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.174$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.596$

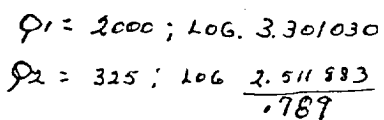
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.135$

Absolute Open Flow _____ 1,596 _____ Mcfd @ 15.025	Angle of Slope θ _____	Slope, n _____ .789
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Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
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County LEA Field ANTELOPE RIDGE UNIT
Operator SHELL OIL COMPANY
Lease ANTELOPE RIDGE UNIT Well No. 1
Volume _____ MCF/24 hr.
Date 2-21-83



← Q in MCF per DAY →