

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 2/2/81	
Company Getty Oil Company ✓				Connection Trans Western Pipeline Co.	
Pool Undesignated Atoka				Formation Atoka	
Completion Date 12/30/80		Total Depth 14,935'		Plug Back TD 14,730'	
				Elevation 3574.2 G.L.	
Farm or Lease Name Getty Federal 24					
Csg. Size 5	Wt. 18#	d 4.151	Set At 14,934'	Perforations: From 13,528' To 13,566'	
Well No. 1					
Trg. Size 2 7/8	Wt. 6.5#	d 2.441	Set At 0-9479'	Perforations: From 9479-13,394' To	
Unit G	Sec. 24	Twp. 22S	Rys. 31E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Atoka Gas/Single				Packer Set At 13,400'	
Producing Thru Tubing		Reservoir Temp. °F 196 @ 13,547'		Mean Annual Temp. °F 60	
				Baro. Press. - P _a 13.2	
State New Mexico					
L 13,403	H 13,403	Cg .6095	% CO ₂ .516	% N ₂ 3.263	% H ₂ S --
Prover --		Meter Run 2"		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	--	--	--	--	--	--	7230	80	packer		SI 1 mo.
1.	2" x 1.5	7/64	690	12	72	6740	79				1 hr.
2.	2" x 1.5	8/64	695	20	66	6450	77				1 hr.
3.	2" x 1.5	9/64	695	30	73.5	6025	75				1 hr.
4.	2" x 1.5	10/64	700	38	72	5300	74				1 1/2 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	16.47	91.0	690	.9887	1.281	1.054	1550
2	16.47	118.0	695	.9943	1.281	1.056	2023
3	16.47	144.0	695	.9873	1.281	1.054	2456
4	16.47	163.0	700	.9887	1.281	1.055	2781
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NO.	P _r	Temp. °F	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.			
1.	1.033	532	1.509	.901	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.			
2.	1.040	526	1.492	.896	Specific Gravity Separator Gas _____ X X X X X X X X			
3.	1.040	533.5	1.513	.901	Specific Gravity Flowing Fluid _____ X X X X X			
4.	1.050	532	1.509	.899	Critical Pressure _____ 668 _____ P.S.I.A. _____ P.S.I.A.			
5.					Critical Temperature _____ 352.5 _____ R _____ R			

NO.	P _r	P _w	P _w ²	P _r ² - P _w ²	$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 3.9417$ $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.0473$ $AOF = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 5028$
1		8502.2	72,287	8,321	
2		8187.2	67,030	13,578	
3		7756.2	60,158	20,450	
4		7036.2	49,508	31,100	
5					

Absolute Open Flow _____ 5028 _____ Mcfd @ 15.025		Angle of Slope _____ Slope, n _____ 5224	
Remarks: _____ Bottom hole pressures measured at mid-point of perms.			