

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 6/12/80			
Company GETTY OIL COMPANY				Connection Llano, Inc.					
Pool East Gramma Ridge-Morrow				Formation Morrow				Unit	
Completion Date 6/11/80		Total Depth 13,297		Plug Back To 13,210		Elevation 3,658 G.L.		Farm or Lease Name Getty 35 State	
Csg. Size 5	Wt. 18	d 4.151	Set At 13,297	Perforations: From 13,094 To 13,120			Well No. 2		
Tqg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 12,618	Perforations: From To			Unit Sec. Twp. Rge. H 35 21-S 34-E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Morrow Gas/Single						Packer Set At 12,615		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 179 @ 13,297		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State N.M.	
L 12,618	H 12,618	Gg .6388	% CO ₂ .838	% N ₂ .476	% H ₂ S --	Prover --	Meter Run 3"	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	--			--	--	--	5475	95	Packer		SI 18hrs
1.	3" x 1.75	6/64	470	9	90	5400	94				1/2hr
2.	3" x 1.75	3/64	480	17	69	5300	93				1/2hr
3.	3" x 1.75	10/64	490	36	78	5150	92				3/4hr
4.	3" x 1.75	14/64	550	62	75	4880	91				3/4hr
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	15.61	65.03	470	.9723	1.252	1.037	1281
2	15.61	90.33	480	.9915	1.252	1.049	1836
3	15.61	132.81	490	.9831	1.252	1.044	2664
4	15.61	184.66	550	.9859	1.252	1.049	3732
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1	.700	550	1.48	.930	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2	.720	529	1.42	.909	Specific Gravity Separator Gas _____
3	.731	538	1.45	.918	Specific Gravity Flowing Fluid _____
4	.820	535	1.44	.908	Critical Pressure _____ 670 P.S.I.A.
5					Critical Temperature _____ 372 R

P _c 7452.2 P _c ² 55,535				
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²
1		7363.2	54,216	1,319
2		7287.2	53,103	2,432
3		7159.2	51,254	4,281
4		6949.2	48,291	7,244
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 22.84$$

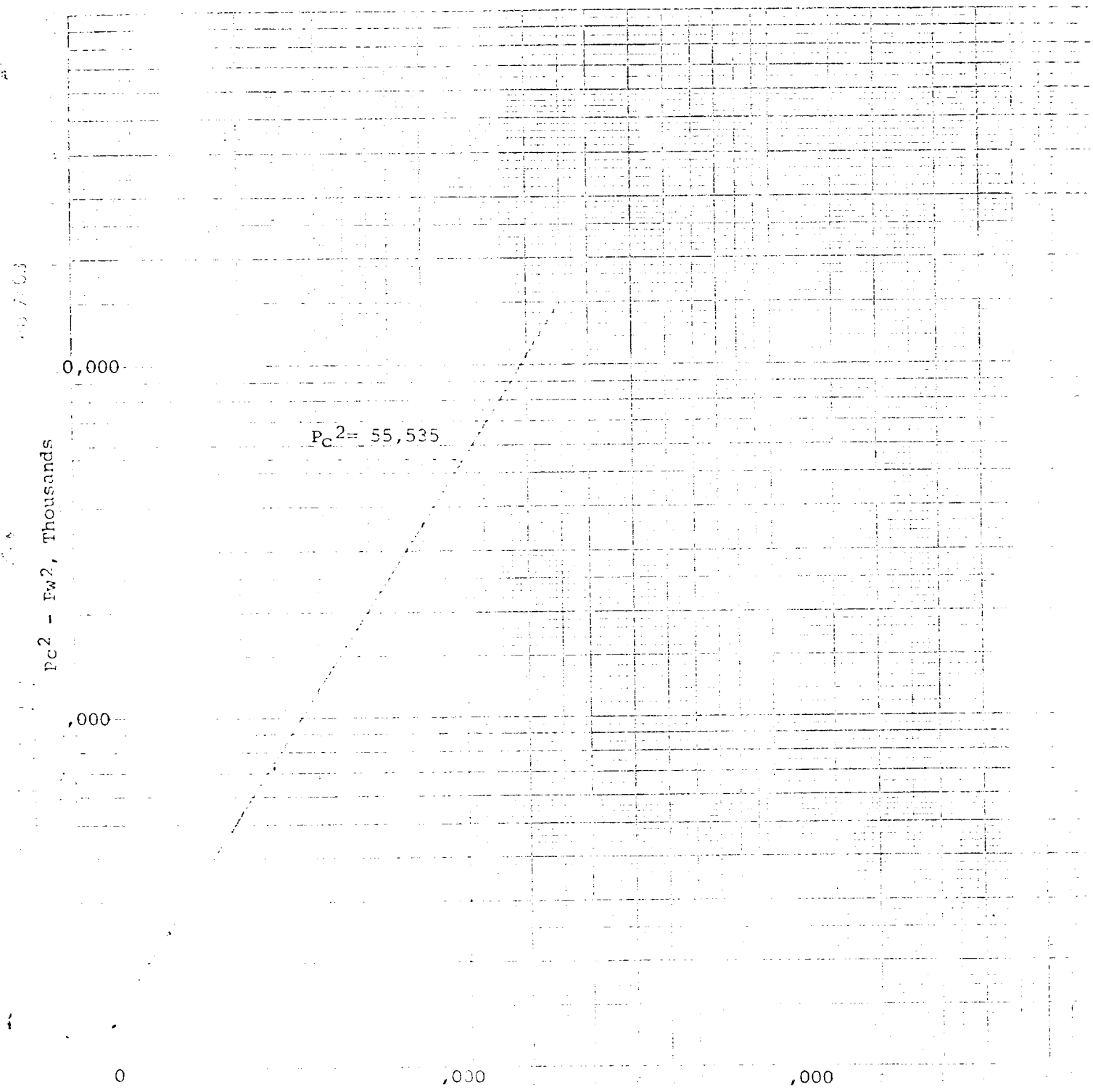
$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7.18$$

$$AQF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 13,182$$

Absolute Open Flow	13,182	Mcf/d @ 15.025	Angle of Slope e	Slope, n .630
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Remarks: Bottom hole pressures measured at mid-point of perfs. Points compressed due to previous experience in East Gramma Ridge Morrow Pool of coning water at high producing rates

Approved By-Commission: Jerry S. ...	Conducted By: Bill Krafft	Calculated By: Peter J. Botes	Checked By: Dale R. Crockett
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RECEIVED

AOF = 13,182

Q, MCFED

JUN 16 1960

OIL CONSERVATION DIV