

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

Copy 651
Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-9-74		JAN 24 1975	
Company The Petroleum Corporation				Connection None			
Pool Russell				Formation Morrow Sand		Unit ARTESIA, OFFICE	
Completion Date 8-6-74		Total Depth 11,761 11710		Plug Back TD 11,682		Elevation 3308 GL	
Form or Lease Name Superior Federal				Well No. 3			
Csg. Size 5 1/2	Wt. 17-20	d	Set At 11,710	Perforations: From 11,384 To 11,671		Unit M Sec. 4 Twp. 20S Rge. 29E	
Thq. Size 2	Wt. 3.3	d 1.67	Set At 11,267	Perforations: From - To -		County Eddy	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G Single				Packer Set At 11,267		State New Mexico	
Producing Thru Tubing		Reservoir Temp. °F 172 @ 11,267		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 11,267	H 11,267	G _g .633	% CO ₂ .789	% N ₂ .726	% H ₂ S Nil	Prover	Meter Run 4.026 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							2713	70	Packer		
1.	4.026	x	1.000	965	20	120	2095	84			1 hr.
2.	4.026	x	1.000	955	29	92	1855	87			1 hr.
3.	4.026	x	1.000	958	54	97	1531	85			1 hr.
4.	4.026	x	1.250	962	24	92	1338	85			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 _{sp}	Rate of Flow Q, Mcfd
1	4.753	139.87	978.2	.9469	1.257	1.061	840
2	4.753	167.56	968.2	.9706	1.257	1.073	1043
3	4.753	229.01	971.2	.9662	1.257	1.071	1416
4	7.469	152.99	975.2	.9706	1.257	1.074	1497
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature	Mcf/bbl.	Deg.
1	1.46	580	1.59	.888	211.5	56.0	.633	XXXXXX	672	365	840	
2	1.44	552	1.51	.868							1043	
3	1.45	557	1.53	.872							1416	
4	1.45	552	1.51	.867							1497	
5												

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1		2121.2	4499.5	2932.7	1.3717	1.3669
2		1891.1	3576.3	3855.9		
3		1599.1	2557.1	4875.1		
4		1419.1	2013.9	5418.3		
5						

Absolute Open Flow 2,046 Mcfd @ 15.025				Angle of Slope @ 45.32		Slope, n .989	
Remarks:							
Approved By Commission: Conducted By: CONE & KERLEY, INC. Calculated By: Joe Rampy Checked By: Bill Kerley							