

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 10-9-80		DEC 5 1980	
Company Yates Petroleum Corporation ✓			Connection Transwestern Pipeline Company		
Pool Wildest Abo <i>Pecos Slope - Abo Gas</i>			Formation Abo		Unit 194353
Completion Date 6-20-80		Total Depth 5220 KB		Plug Back To 4885 KB	Elevation 4046 KB
Form or Lease Name Hilltop NQ State		Well No. 1			
Cas. Size 5 1/2"	Wt. 14#	d 5.012	Set At 4892	Perforations: From 3958 To 3961	
Thg. Size 2 7/8"	Wt. 6.5#	d 2.441	Set At 3916	Perforations: From To	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single			Packer Set At 3916 KB		County Chaves
Producing thru Tubing		Reservoir Temp. °F 10 @ 3960	Mean Annual Temp. °F 62	Baro. Press. - P _g 132	State New Mexico
L 3955	H 3955	G _g 0.658	% CO ₂ 0.41	% N ₂ 7.45	% H ₂ S N.7
Prover -----		Meter Run 2"	Taps Flanged		

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							971	79			Weeks
1.	2.067	X	0.500	530	10	70	893	80			1 hour
2.	2.067	X	0.500	530	19	70	822	81			1 hour
3.	2.067	X	0.500	530	37	70	716	82			1 hour
4.	2.067	X	0.500	530	68	70	540	83			1 hour
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	1.189	73.70	543.2	.9905	1.233	1.047	112
2	1.189	101.59	543.2	.9905	1.233	1.047	154
3	1.189	141.77	543.2	.9905	1.233	1.047	216
4	1.189	192.19	543.2	.9905	1.233	1.047	292
5							

NO.	R ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.823	530	1.478	.9125			0.658	XXXXXX	660	358.5
2	0.823	530	1.478	.9125				XXXXXX		
3	0.823	530	1.478	.9125						
4	0.823	530	1.478	.9125						
5										

NO.	P ₁ ²	P _w	R _w ²	P _c ² - R _w ²
1			1005	184
2			852	337
3			648	541
4			371	818
5				

$$(1) \frac{P_c^2}{R_c^2 - R_w^2} = 1.4535$$

$$ACF = Q \left[\frac{R_c^2}{P_c^2 - R_w^2} \right]^n = 382$$

$$(2) \left[\frac{R_c^2}{R_c^2 - R_w^2} \right]^n = 1.3084$$

Absolute Open Flow	382	Mcf/d @ 15.025	Angle of Slope	54.3 deg.	Slope, n	0.7187
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Remarks: Static pressures by Bennett Wireline, flowline pressures by DWT.
Calculations work sheet C122D attached.

Approved By Commission:	Conducted By: Don Weaver	Calculated By: Eddie Mahfood	Checked By:
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