

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

1-22 file Form C-122
 Revised 9-1-63
RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 2-9-79		FEB 16 1979	
Company Harvey E. Yates Company					Connection El Paso Natural Gas-Unconnected		O. C. C. ARTERIAL OFFICE	
Pool Undesignated					Formation Morrow			
Completion Date 11-6-78		Total Depth 11200		Plug Back TD 10950		Elevation 3516 GR.		Farm or Lease Name Loco Hills Welch
Csg. Size 5 1/2	Wt. 17#	d 4.892	Set At 11,199	Perforations: From 10876 To 10882		Well No. 1		
Tubg. Size 2 7/8	Wt. 6.50#	d 2.441	Set At 10,780	Perforations: From To		Unit D	Soc. 9	Twp. 18S
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At 10780		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 163 @ 10729		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico
L 10879	H 10879	Gg .600	% CO ₂	% N ₂	% H ₂ S	Prover X	Meter Run	Taps

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							3245		Pkr.		
1.	2" X 3/16"			151		67	3182	67			60 min.
2.	2" X 1/4"			203		61	3103	61			60 min.
3.	2" X 3/8"			168		67	3012	67			60 min.
4.	2" X 7/16"			178		62	2785	62			60 min.
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	0.6082		164.2	0.9933	1.291	1.014	129.9
2	1.0870		216.2	0.9990	1.291	1.018	308.6
3	2.378		181.2	0.9933	1.291	1.015	560.8
4	3.408		191.2	0.9981	1.291	1.016	853.1
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Trace	Mcf/bbl.
1.		USED SIMPLIFIED			A.P.I. Gravity of Liquid Hydrocarbons	Trace	Deg.
2.		SUPERCOMPRESSIBILITY			Specific Gravity Separator Gas	0.600	X X X X X X X X
3.		TABLES.			Specific Gravity Flowing Fluid	X X X X X	
4.					Critical Pressure	671 P.S.I.A.	P.S.I.A.
5.					Critical Temperature	358 R	R

NO.	P _i ²	P _s ²	P _w ²	P _i ² - P _w ²
1	4423.2	19565	597	
2	4364.2	19046	1116	
3	4288.2	18389	1773	
4	3995.2	15962	4200	
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.8004761$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2923.6$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.427004$

Absolute Open Flow	2923.6	Mcf @ 15.025	Angle of Slope	51° 51'	Slope, n	0.785156
Remarks:						
Approved By Commission:		Conducted By: Tefteller, Inc.		Calculated By: F. Tefteller		Checked By: