

CORRECTED REPORT

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Eumont Formation Queen Sand County Lea
Initial X Annual _____ Special _____ Date of Test 8-29-58
Company Neville G. Penrose, Inc. Lease Mattern Well No. 7
Unit N Sec. 7 Twp. 22S Rge. 37E Purchaser El Paso Natural Gas Co.
Casing 5 1/2" Wt. 12# I.D. 5.012 Set at 3640' Perf. _____ To _____
Tubing 2 1/2" Wt. 6.50# I.D. 2.441 Set at 3496' Perf. 3436' To 3506'
Gas Pay: From 3436' To 3506' L 3436 xG 6.50 -GL 2234 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 8-14-58 Packer 3415 Reservoir Temp. -

OBSERVED DATA

Tested Through (Prover) (~~ORIFICE~~)

Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (ORIFICE) Size	(ORIFICE) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	C					800				72
1.	2	1.125	18		57	785				3
2.	2	1.125	23		61	774				3
3.	2	1.500	8		63	757				3
4.	2	1.500	18		31	730				3
5.	2	1.125	21		52	745				24

FLOW CALCULATIONS

No.	Coefficient <u>prover</u> (Per Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	28.2569		31.2	1.0029	.9608	neg.	849.5
2.	28.2569		36.2	.9990	.9608	"	982
3.	54.3653		21.2	.9971	.9608	"	1104
4.	54.3653		31.2	1.0291	.9608	"	1677
5.	28.2569		34.2	1.0078	.9608	"	936

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 5.866 (1-e^{-s}) .142

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 813.2 P_c² 661.3

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	798.2	637.1	4.986	26.16	3.93	640.6	20.7	866	1.1
2.	787.2	619.7	5.760	33.18	4.71	624.4	36.9	710	1.1
3.	770.2	593.2	6.476	42.94	5.955	599.1	62.2	754	1.1
4.	743.2	552.2	9.837	96.77	13.74	555.9	95.4	752	1.1
5.	758.2	574.9	5.491	30.15	4.28	579.2	82.1	752	1.1

Absolute Potential: 2650 MCFPD; n .498COMPANY Neville G. Penrose, Inc.ADDRESS Box 988, Eunice, New MexicoAGENT and TITLE Glenn G. Neill, AgentWITNESSED H.H. KerbyCOMPANY El Paso Natural Gas Co.

REMARKS

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

- Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.
- P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia
- P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if
flowing through casing.) psia
- P_f = Meter pressure, psia.
- h_w = Differential meter pressure, inches water.
- F_g = Gravity correction factor.
- F_t = Flowing temperature correction factor.
- F_{pv} = Supercompressibility factor.
- n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .